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PREFACE.

The following tide tables for the year 1904 have been prepared in the tidal division of the United States Coast and Geodetic Survey Office. They are essentially similar to the volumes for the eight preceding years, but improved values have been introduced wherever better data could be made use of.

Current diagrams similar to those for New York Harbor have been constructed for Boston Harbor, Nantucket and Vineyard Sounds, and for Delaware and Chesapeake Bays. These diagrams present the average currents much more clearly than any mere tabular statement. Examples of their use accompany each diagram. All of these have been constructed upon a plan devised by Lieut. E. H. Tillman, U. S. N., Assistant, Coast and Geodetic Survey, and Mr. John Ross, Nautical Expert, of the same Survey.

This Survey acknowledges its indebtedness to the following-named authorities for valuable tidal information used in the preparation of these tables, in addition to the large number of observations already in its possession:

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A. J. Pinto Basto, Lieut. Commanding the *Mindovy*, Portuguese Navy, Lisbon, Portugal (1897).

John Barrett, United States Consul-General (1894), Bangkok, Siam.

G. W. Bell, United States Consul (1894), Sydney, New South Wales.

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A. M. Bisbee, Coast Inspector, Shanghai, China, through Charles Denby, United States Minister (1894), Pekin, China.

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Charles Denby, United States Minister (1894), Pekin, China.

Director, Oficina Hidrográfica, Valparaiso, Chile, hourly heights of the sea at Valparaiso for one year.

Edwin Dun, United States Minister (1894), Tokyo, Japan.

Alex. Duncan, Pilot Master, Georgetown, Demerara, through James Spaight, United States Vice-Consul (1894), Demerara.

O. O. Eckford, United States Consul (1894), Kingston, Jamaica.

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E. A. Gieseler, Assistant U. S. Engineer, time and height of high and low waters at Panama, January 1, 1885, to September 30, 1888.

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Hydrographer, Hydrographic Office, Navy Department, Washington, D. C.

Hydrographic Office, Admiralty, London, England, the loan of valuable tidal records in many parts of the world.

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Contre-Admiral R. von Kalmár, Director of the Naval Observatory, Pola, Austria (1897), hourly heights of the sea at Pola for the four years 1884–1887.

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Marine Board, Port Adelaide, South Australia, through Charles A. Murphy, United States Consular Agent (1894), Port Adelaide.

E. B. Michell, Bangkok, Siam, through John Barrett, United States Consul-General (1894), Bangkok, Siam.

Ministerie van Marine, Afdeeling Hydrographie, 's Gravenhage, Netherlands.

Charles A. Murphy, United States Consular Agent (1894), Port Adelaide, South Australia.

E. Nevill, H. M. Astronomer, Durban Observatory, through Dr. J. P. Prince, United States Consular Agent (1894), Durban, Africa.

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J. P. Prince, United States Consular Agent (1894), Durban, Africa.

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S. Schneegans, United States Consul (1894), Saigon, Cochin China.

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James Spaight, United States Vice-Consul (1894), Demerara.

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Rear-Admiral W. J. L. Wharton, R. N., Hydrographer, Hydrographic Office, Admiralty, London, England.

J. T. Walbran, Captain of the Quadra (1896), British Columbia.

H. N. P. Wallaston, Secretary of Customs, Melbourne, through D. W. Maratta, United States Consul-General, (1894), Melbourne, Victoria.

Thomas Wilson, Greenock, Scotland.

The predicted time and height of the high and low waters for seventy principal ports or stations are given in Table 1, pages 46–324; with the exception of St. Michael the predictions cover the entire year 1904. These stations are distributed as follows: 20 on the eastern and 7 on the western coast of North America, 4 in South America, 14 in Asia, 1 in Africa, 15 in Europe, and 9 in Oceanica. They are usually referred to in this volume as principal or standard ports. These predictions are extended to about three thousand subordinate stations by means of the tidal differences and ratios of Table 3, pages 330–443. The predicted times of all the slack waters for the year 1904 are given for two stations, Seymour Narrows, B. C., and Sergius Narrows, Alaska, on pages 472–479.

An explanation of the tables, with examples of their use, is given on pages 25–38.

O. H. Tittmann,
Superintendent.

April, 1903.

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29	30	31				

JUNE.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

INTRODUCTION.

TREATISE ON TIDES.

1. The word *tide* is used to indicate the periodic rising and falling of oceanic and other large bodies of water, due mainly to the attraction of the moon and sun. This rising and falling necessitates a lateral or horizontal movement of the waters; such movements are called *tidal currents*. They usually flow and ebb somewhat in retard of the rising and falling of the tide. As the velocity and direction of tidal currents are much modified by extremely local causes, while the times and heights of the tides remain nearly constant over considerable areas, the currents may with propriety be made to depend upon the tides; for this reason their discussion will be postponed to § 11.

The tide rises until it reaches a maximum height called *high water*, and then falls until it reaches a minimum height called *low water;* these two phases of the tide may be spoken of as *the tides*. For a few minutes before and after high or low water it is difficult to observe any vertical motion in the tide; while thus apparently stationary the tide is said to *stand*. The duration of high or low water stand is usually too vague a quantity to be of much service in describing the character of the tide.

For reasons to be given later, based upon the fact that the tides are chiefly due to the difference between the moon's attraction upon the enveloping sea and the earth as a whole, one would expect that at most tidal stations two high waters and two low waters would occur each lunar day; in other words, to each transit of the moon (inferior as well as superior) there would correspond one high water and one low water. On an average the time of high water at a given station follows the time of transit by a certain number of hours and minutes called the *high water interval* (HWI) or *high water lunitidal interval*, or the *corrected establishment*. In like manner the *low water interval* (LWI) or *low water lunitidal interval* indicates the average number of hours and minutes between the time of transit and the time of low water.

According as the moon is in or near the perigee, apogee, or either tropic, the tides are distinguished as *perigean*, *apogean*, or *tropic* tides. *Spring tides* occur at about the time of new or full moon, and *neap tides* at about the time of either quarter. More definite notions in regard to these tides will be given in § 8.

2. *Directions for observing tides.*

Wherever tides are to be observed, the first thing to do is to fix a well-graduated vertical *staff* in as permanent a position as possible. A solid wall or pile will often furnish a suitable support. The heights of several bench marks above the zero of this staff should then be determined with considerable precision in order to detect any settling or rising in the support of the staff. These bench marks should be of a permanent character and situated at various distances from the staff. The object of such permanence is to enable one to recover the plane of reference at any future time.

Direct staff readings.—The staff and bench marks established, the observer should read the height of the tide at even intervals of time. Readings at the exact hours throughout the twenty-four hours of each day are preferable for most purposes. The kind of time used is immaterial, provided that it be the same throughout the series of observations. It should always be specified in the record. In making such observations it is of importance to know the time to within about one minute. In high and low water observations readings should

be made every ten minutes, say for about forty minutes before to forty minutes after each of the four tides of the day. In reading a height upon the staff, unless the surface of the water be perfectly smooth, note a point midway between the crest and trough of the waves. A glass tube open at both ends and held alongside the staff will facilitate making these readings. When the surface is, as a rule, too rough for staff readings, the water in a well communicating with the sea by means of a pipe half an inch or more in diameter should be observed instead.

Box gauges.—A box gauge consists of a long vertical box inclosing a float which rises and falls with the tide. In some cases the float carries a vertical rod which may itself be graduated; in others the float is attached to a wire or cord which passes over a pulley, then along a graduated scale, and terminates in a counterpoise. This gauge permits readings to be made when the sea is comparatively rough. A simple staff gauge should always be located near a box gauge and the readings of the two should be frequently compared, for it is obvious that the line of flotation is liable to become somewhat altered.

Automatic or self-registering tide gauges.—A gauge of this variety requires a float and box similar to those employed in a box gauge. The motion of the float, as it rises and falls, is communicated to a pencil which traces a curve upon a moving sheet of paper. Uniform motion is imparted to the paper by means of a cylinder or drum driven by a well-regulated clock. The pencil is free to move in a direction perpendicular to the line of motion of the paper. The paper, usually of sufficient length to contain a month's record, is paid out from one cylinder, passes over a second, and is received upon a third. This gauge, besides giving a continuous record, requires a comparatively small portion of the observer's time. Staff readings (upon a staff gauge) and time comparisons should be made at frequent intervals and recorded upon the tidal sheet or marigram. These staff readings should be made within an hour, say, of the times of high or low water.

3. *General properties of tides.*

Confining one's attention to a particular station, the following properties common to most tides are usually revealed by means of a few days' observation:

(1) Two high waters and two low waters occur during each twenty-four or twenty-five hours.

(2) The alternate high or low waters are more or less unequal.

(3) The heights of corresponding tides vary from day to day.

(4) The lunitidal intervals (high or low water) are different for alternate tides.

(5) The lunitidal intervals for corresponding tides vary from day to day.

(6) The inequality in height or interval referred to in (2) or (4) becomes greater as the moon's declination, either north or south, increases. This does not apply, because of the sun's tidal effect, to the lesser inequality at stations where the high and low waters are affected by quite unequal amounts.

(7) The range of tide (as determined from all four tides of the day) is $\begin{matrix}\text{greater}\\ \text{less}\end{matrix}$ than usual near the time of $\begin{matrix}\text{new or full moon.}\\ \text{the moon's quadrature.}\end{matrix}$

(8) The range of tide is $\begin{matrix}\text{greater}\\ \text{less}\end{matrix}$ than usual near the time when the moon is in $\begin{matrix}\text{perigee.}\\ \text{apogee.}\end{matrix}$

(9) The lunitidal intervals are $\begin{matrix}\text{shorter}\\ \text{longer}\end{matrix}$ than usual near the times of the $\begin{matrix}\text{first and fifth}\\ \text{third and seventh}\end{matrix}$ octants.

The above statements do not usually apply to the tides at stations where but one high and one low water occur daily. The readily observable properties of such tides are:

[1] But one high and one low water occur daily when the moon is far from the equator.

[2] Two high and two low waters, both comparatively small, may occur daily when the moon is near the equator.

[3] The moon being far from the equator, the (diurnal) range of tide is $\begin{matrix}\text{increased}\\ \text{decreased}\end{matrix}$ near the time of either $\begin{matrix}\text{solstice.}\\ \text{equinox.}\end{matrix}$

The equilibrium theory of tides.

The uncorrected equilibrium theory begins by assuming—

(1) That the nucleus of the earth is comparatively rigid (or that at least its outer layer is a rigid shell), and that it is composed of concentric spherical layers, each layer having a constant density.

(2) That the nucleus is covered by a fluid of uniform depth, shallow as compared to the radius of the nucleus, but deep as compared to the rise and fall of tide.

(3) That this fluid has neither inertia nor viscosity, nor is there friction between the fluid layer and the nucleus or the enveloping atmosphere.

As these conditions are far from being realized in the case of nature, observations will show at best only certain approximations toward ideal values. Before introducing the modifications necessary to adapt the theory to the tides, it seems desirable to ascertain what the tendencies are in the ideal case.

Since the angular velocity of the moon in her orbit and the rotary motion of the earth's surface are finite, while the particles of fluid are supposed to respond *immediately* to the forces acting upon them, we may consider the earth's surface as stationary during any given instant, and treat the surface assumed by the water as a case of static equilibrium.

Because of hypothesis (1), the attraction of the moon upon the nucleus is the same as it would have been had the entire mass been concentrated at the earth's center.

At any given place the tide-producing tendencies depend chiefly upon the distance and direction of the disturbing body, and are governed by what may be referred to as Laws I and II.

Law I.—The tendency to produce tides at a given station varies directly as the mass of the disturbing body and inversely as the cube of the body's distance from the earth's center.

In consequence of this law the amplitude of the solar tide ought to be about 0.458 time that of the lunar tide. For the mass of the sun = 331 000, and the mass of the moon = 1/81, the mass of the earth being unity, while the sun's distance = 92 800 000 miles and the moon's distance = 239 000 miles, so that—

$$\text{solar tide}:\text{lunar tide} = \frac{331\,000}{(92\,800\,000)^3} : \frac{1}{81} \times \frac{1}{(239\,000)^3}; \tag{1}$$

$$\therefore \text{solar tide} = 0.458 \text{ lunar tide.} \tag{2}$$

The eccentricity of the lunar orbit being 0.055, this law gives

$$\text{perigean range}:\text{mean range} = \frac{1}{(1-\text{eccentricity})^3}:1, \tag{3}$$

$$\text{apogean range}:\text{mean range} = \frac{1}{(1+\text{eccentricity})^3}:1, \tag{4}$$

$$\therefore \text{perigean range} = 1.18 \text{ mean range,} \tag{5}$$

$$\text{apogean range} = 0.85 \text{ mean range.} \tag{6}$$

Law II.—The tendencies to produce tide for various relative positions of the tide-producing body are proportional to

$$3\cos^2\theta - 1, \tag{7}$$

where θ is the zenith distance of the body corrected for parallax. In other words, θ is the angle at the earth's center defined by the given station and the center of the disturbing body.

If u denote the height of tide expressed in terms of the earth's radius, a, then it is proportional to $3 \cos^2 \theta - 1$; in other words, we may put $u = \alpha' (3 \cos^2 \theta - 1)$. The equation of the surface of the sea at any given instant is

$$\rho = a (1+u), \tag{8}$$

or

$$\rho = a + a \alpha' (3 \cos^2 \theta - 1), \tag{9}$$

which is the equation of an ellipsoid whose semiaxes are

$$a (1+2 \alpha'),\ a (1-\alpha'),\ a (1-\alpha'). \tag{10}$$

That is, forces acting according to this law cause the surface of the sea to assume the form of an ellipsoid of revolution whose longest axis points toward the tide-producing body.

It will be observed that when the moon, say, is in the zenith (or nadir), the elevation of the sea is $2 a \alpha'$ higher because of the existence of the moon; but when in the horizon, the elevation of the sea is $a \alpha'$ lower.

For a given place the height of the tide will vary from hour to hour of the day chiefly on account of the variations in θ; but, as already noted, it varies somewhat on account of the variation in r, the moon's distance.

For a given place the angle θ depends upon the moon's hour angle and its declination, both of which are functions of time. From spherical trigonometry,

$$\cos \theta = \cos \lambda \cos \delta \cos (\psi - l) + \sin \lambda \sin \delta \tag{11}$$

where

λ = geographic latitude of the station,
l = longitude of the station (W. from Greenwich),
δ = moon's declination,
$\psi = mt$ = moon's hour angle (W. from the meridian of Greenwich).

$$\begin{aligned} \therefore a \alpha' (3 \cos^2 \theta - 1) = & \tfrac{3}{2} a \alpha' \cos^2 \lambda \cos^2 \delta \cos 2 (\psi - l) \\ & + 3 a \alpha' \sin \lambda \cos \lambda \sin 2 \delta \cos (\psi - l) \\ & + \tfrac{1}{2} a \alpha' (3 \sin^2 \lambda - 1)(3 \sin^2 \delta - 1) \\ & = \text{height of tide according to the uncorrected equilibrium theory.} \end{aligned} \tag{12}$$

For the lunar tide,

$$a \alpha' = \tfrac{1}{2} \frac{\text{mass of moon}}{\text{mass of earth}} \times \frac{a^4}{(\text{moon's distance})^3} = 0.59 \text{ feet;} \tag{13}$$

and for the solar tide,

$$a \alpha' = \tfrac{1}{2} \frac{\text{mass of sun}}{\text{mass of earth}} \times \frac{a^4}{(\text{sun's distance})^3} = 0.27 \text{ feet.} \tag{14}$$

(i) The height of the semidiurnal portion of the lunar or solar tide at a given station is proportional to the cosine of twice the local hour angle of the moon or sun multiplied by the square of the cosine of its declination. The factor depending upon the declination is always near unity.

(ii) The height of the diurnal portion of the lunar or solar tide at a given station is proportional to the cosine of the local hour angle of the moon or sun multiplied by the sine of twice its declination. The factor depending upon the declination varies almost directly with the declination.

(iii) There is a portion of the lunar or solar tide which depends, at a given station, wholly upon the declination of the moon or sun. The height of this portion is proportional to $3 \sin^2 \delta - 1$, where δ represents the declination of the moon or sun. The period of this expression is a half tropical month or year, as the case may be.

The height of the entire tide, or of the surface of the sea, at any given time and place, is the sum of the six terms just referred to—three belonging to the moon and three to the sun.

The corrected equilibrium theory.—To approximately adapt the foregoing theory to the case of nature, we may write the height of the lunar or solar tide in the form

$$\begin{aligned} &R_2 \cos^2 \delta \cos [2 (\psi - l) - \varepsilon_2] \\ &+ R_1 \sin 2 \delta \cos [\psi - l - \varepsilon_1] \\ &+ R_0 [3 \sin^2 \delta - 1] \end{aligned} \tag{15}$$

where R and ε must he determined from observations at the given stations. Statements (i), (ii), and (iii) require no modification except that for "hour angle" we must write "hour angle diminished by a constant appropriate for the station in question" and so for "twice the hour angle."

This correction is theoretically necessary (even if the water have neither inertia nor friction) because the earth's surface is not wholly covered with water, and the equation of continuity can not generally be satisfied when the rise and fall is as given by equation (12) unless we continually alter the plane of reference.

The R's, as did the α's, involve the factor

$$\left(\frac{\text{mean distance of moon}}{\text{actual distance of moon}}\right)^3 = \left(\frac{c}{r}\right)^3 = \left(\frac{\text{actual parallax}}{\text{mean parallax}}\right)^3$$

In practice the inertia and friction of the water produce important modifications in the R's and ε's from their equlibrium values. Nevertheless, the *form* (15) is capable of approximately representing the rise and fall of the tide in nature. This is especially true, if we make the farther modification of taking δ and r at times anterior to the time of tide. Such times, as well as the R's and α's must be determined from observations made at the given station.*

5. *Explanation of phenomena noted in § 3 by the equilibrium theory.*

The tides in (i), § 4, are semidiurnal, while those in (ii) are diurnal. Each may, for any particular day, be represented by a cosine curve of proper length (period) and amplitude. Now it is obvious that the superposition of a diurnal curve upon a semidiurnal will, in general, cause the alternate maxima or minima of the semidiurnal curve to become more or less unequal in height and unequally displaced in time. These statements account for (1), (2), and (4) of § 3. As noted in (ii), § 4, the amplitude of the diurnal curve (lunar or solar) is nearly proportional to the declination of the moon or sun. This explains property (6), § 3.

The superposition of a semidiurnal curve or wave upon another of nearly equal period, but of greater amplitude, simply increases or decreases the amplitude of the latter when approximately like or opposite phases coincide; but when the phases differ by approximately 90° or 270° the principal wave is displaced in time by the subordinate one—accelerated or retarded according as the maximum, say, is 90° in advance or in retard of the maxima of the principal wave. This accounts for properties (3), (5), (7), and (9), § 3. Property (8) has been explained in § 4, where the values of the perigean, apogean, and mean ranges are compared. This amounts to varying the α' or the R's inversely as the cube of the moon's distance from the earth's center.

At a station where observation shows that R_1 is several or many times as great as R_2, expression (15), the number of maxima and minima of a curve composed of diurnal and semidiurnal parts will usually depend upon the number of maxima and minima of the diurnal part when the moon's declination is great; but when the moon is near the equator the number may be governed by the semidiurnal part. This accounts for properties [1] and [2], § 3. The moon crosses the equator and reaches its extreme declination at nearly the same points in the heavens as does the sun. This accounts for property [3].

* Cf. Thomson and Tait's Natural Philosophy, §§ 804–811.

6. A still more perfect form or expression for the equilibrium theory is obtained by developing the tide-producing potential (the principal part of which is inversely proportional to the cube of the disturbing body's distance from the earth's center, and directly proportional to $3 \cos^2 \theta - 1$, § 4) into a series of cosine terms. For considerable periods of time the coefficients of these terms remain sensibly constant and their angles or arguments increase uniformly with the time. Having found from the development of the potential what are the more important terms, one then assumes that by leaving all amplitudes and epochs arbitrary the series is, by the principle of forced oscillations,* capable of representing the tide at any given station. The harmonic analysis, § 7, has for its object the determination of these amplitudes and epochs from tidal records.

7. *Harmonic analysis.*†

Since the tide is periodic in its character, and since the periods of its causes are known from astronomical considerations, it ought to be possible to represent the height at any given time by means of the Fourier series, or, rather, an aggregation of such series,

$$y = A \cos (at + \alpha) + B \cos (bt + \beta) + \quad . \quad . \quad . \tag{16}$$

where y is reckoned from mean sea level.

For aiding the imagination, we may suppose that any given term in this series represents the oscillation caused by a fictitious star, or moon, moving uniformly in the celestial equator around the earth, and at a constant distance therefrom, having the property of producing a maximum of the oscillation, or component tide, a certain number of hours after its upper meridian passage, and a minimum the same number of hours after its lower meridian passage.

If a denote the hourly speed of the component A, or the apparent angular velocity of its fictitious moon, and A° its epoch or lag expressed in degrees, A°/a is the lag expressed in hours. Also if $\arg_0 A$ denote the hour angle of the fictitious moon at local mean midnight, $at + \arg_0 A$ is its hour-angle at any subsequent hour t. Consequently the time of high water of the component A is

$$t = \frac{A^\circ}{a} - \frac{\arg_0 A}{a}, \tag{17}$$

and the height at any time t is

$$A \cos (at + \arg_0 A - A^\circ) \tag{18}$$

so that

$$\alpha = \arg_0 A - A^\circ. \tag{19}$$

By replacing A, A°, a, and α by B, B°, b, and β, the corresponding quantities for any other component, B, are obtained.

The heights due to any components may be shown graphically thus (see Fig. 1):

Lay off the hours of the day according to any convenient scale. Draw cosine curves of amplitudes A, B, . . . and of periods $\frac{360}{a}$, $\frac{360}{b}$, . . . hours in length. The first maxima are located upon the hour lines

$$\frac{A^\circ}{a} - \frac{\arg_0 A}{a}, \quad \frac{B^\circ}{b} - \frac{\arg_0 B}{b} \quad . \quad . \quad . \quad ; \tag{20}$$

the succeeding maxima are then fixed by the lengths of the several periods. The symbol ☽ may be used to indicate the time of transit of any fictitious moon.

To combine these curves, add the ordinates for each hour, thus obtaining the resultant tidal curve from which the times and heights of high water and low water may be obtained.

The object of the harmonic analysis is to resolve the observed tide—i. e., observed heights of the surface of the sea—into simple elements of component tides, consisting of simple

*See Laplace, Méc. Cél., IV, iii, § 16.

†See an article entitled Harmonic Analysis of Tidal Observations, by Prof. G. H. Darwin, B. A. A. S. Report, 1883; also, article Tides, Encyclopædia Britannica, ninth edition.

harmonic oscillations. The quantities a, b, . . . and $\arg_0 A$, $\arg_0 B$, . . . are known from astronomical considerations, so that the analysis of the tide at a given place implies only the determination of the amplitudes A, B, . . . and the epochs A°, B°, . . .

To harmonically analyze the tide at a given place, let its height be given at each hour of the day for a year, say. Sum these ordinates as nearly as may be at the component hours of each component (its harmonics excepted). The sums belonging to each component will be 24 in number and represent sums corresponding to each of the twenty-four hours into which the component day is supposed to be divided. As the summation in each case is made with reference to the component hours, the effect of the other components upon these 24 sums will, in the long run, approach zero or a constant. Having found the 24 heights corresponding

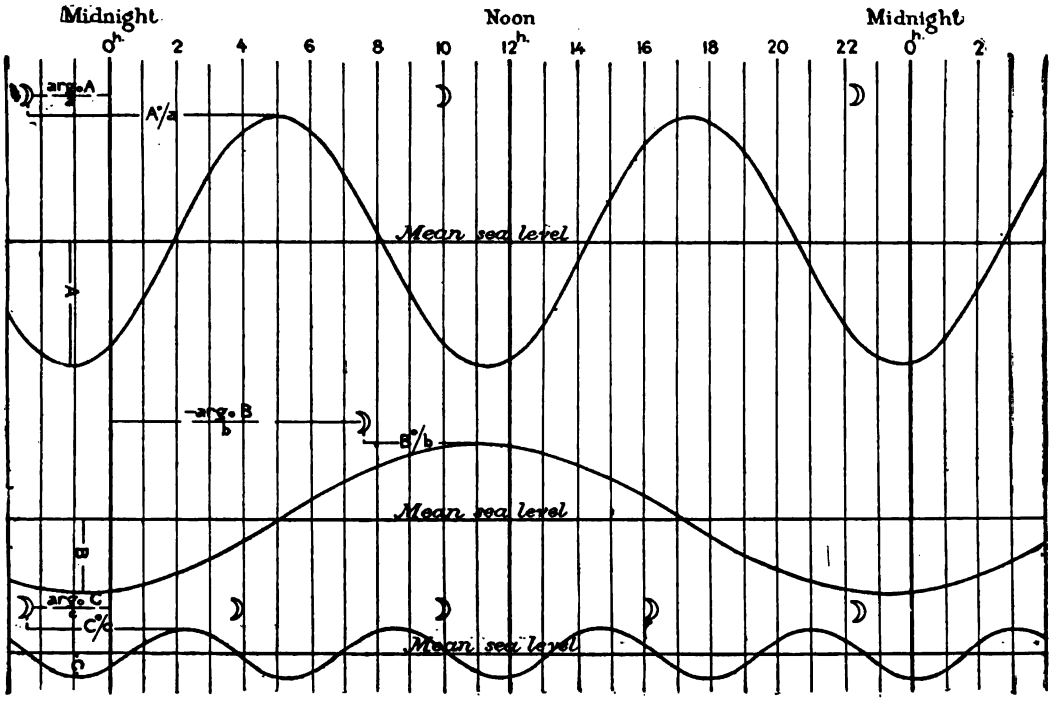

Fig. 1.

to these sums, they may be plotted as hourly ordinates; such a plotting would represent the required component tide combined with its harmonics. To analyze these 24 heights, h_0, h_1, h_2, . . . h_{23}, assume each to be of the form

$$h=H_0+\overline{A}_1 \cos at+\overline{\overline{A}}_1 \sin at+\overline{A}_2 \cos 2\,at+\overline{\overline{A}}_2 \sin 2\,at+ \quad . \quad . \quad . \quad +\overline{A}_8 \cos 8\,at+\overline{\overline{A}}_8 \sin 8\,at, \tag{21}$$

where $at=0^\circ$, 15°, 30°, ... 345°.

It is not difficult to show that the most probable values of $H_0, \overline{A}, \overline{\overline{A}}$ are given by the equations

$$\begin{aligned}
24\,H_0&=h_0+h_1+h_2+ \quad . \quad . \quad . \quad +h_{23}.\\
12\,\overline{A}_1&=h_0 \cos 0^\circ+h_1 \cos 15^\circ+h_2 \cos 30^\circ+ \quad . \quad . \quad . \quad +h_{23} \cos 345^\circ,\\
12\,\overline{A}_2&=h_0 \cos 0^\circ+h_1 \cos 30^\circ+h_2 \cos 60^\circ+ \quad . \quad . \quad . \quad +h_{23} \cos 330^\circ,\\
12\,\overline{A}_3&=h_0 \cos 0^\circ+h_1 \cos 45^\circ+h_2 \cos 90^\circ+ \quad . \quad . \quad . \quad +h_{23} \cos 315^\circ,\\
&\quad . \quad . \quad . \

From these values of A, $\bar{\bar{A}}$, we find A and α by the relations

$$A = (\bar{A}^2 + \bar{\bar{A}}^2)^{1/2}, \tan \alpha = -\frac{\bar{\bar{A}}}{\bar{A}}. \tag{23}$$

A° then becomes known by the equation

$$A^\circ = \arg_0 A - \alpha, \tag{24}$$

$\arg_0 A$ being known from astronomical considerations.* So for components B, C, etc.

It may be added that because the hourly heights are tabulated in solar time, most of the amplitudes as brought out in the analysis must be increased by a factor a little greater than unity, known as the augmenting factor; also that most of these amplitudes must be corrected for the longitude of the moon's node by the application of a suitable factor. For series less than about a year in length, still other corrections must be applied.

8. *Terms sometimes useful in describing tides.*

Mean range (Mn) is the average value of the semidaily range of tide.

Spring range (Sg) is the greatest periodic semidaily range occurring usually one or two days after new and full moon.

Neap range (Np) is the smallest periodic semidaily range occurring usually one or two days after the moon is in quadrature—that is, after the first and third quarters.

Perigean range (Pn) is the greatest periodic semidaily range of tide occurring usually from one to three days after the moon is in perigee.

Apogean range (An) is the smallest periodic semidaily range occurring usually from one to three days after the moon is in apogee.

Great diurnal range (Gt) is the difference between the mean of all the higher high waters (HHW) and the mean of all the lower low waters (LLW) of each day during one or more half tropical months.

Small diurnal range (Sl) is the difference between the mean of all the lower high waters (LHW) and the mean of all the higher low waters (HLW) of each day during one or more half tropical months.

Great tropic range (Gc) is the greatest periodic daily range of tide usually occurring soon after the moon is farthest north or south from the equator and therefore near one of the tropics.†

Small tropic range (Sc) is the smallest periodic daily range of tide usually occurring soon after the moon is farthest north or south from the equator and therefore near one of the tropics.†

Tides determining the above ranges, or of simultaneous occurrence, may be referred to as *spring*, *neap*, *perigean*, *tropic*, etc.; a like remark is applicable to lunitidal intervals, and occasionally to other quantities.

An *inequality* in the tide is, or implies, a departure, in time or amplitude, from the mean tide at a given station. The inequality having the period of a half lunation is the *phase inequality;* that having an anomalistic month is the *parallax inequality;* that which causes the two high waters or two low waters of a day to differ is called the *diurnal inequality.*

The *age* of an inequality is the amount of time by which it follows its astronomical cause. The ages, in hours, of the phase, parallax, and diurnal inequalities are given by the expressions

$$\frac{S_2^\circ - M_2^\circ}{1.016} = 0.984\,(S_2^\circ - M_2^\circ), \quad \frac{M_2^\circ - N_2^\circ}{0.544} = 1.837\,(M_2^\circ - N_2^\circ), \quad \frac{K_1^\circ - G_1^\circ}{1.098} = 0.911\,(K_1^\circ - O_1^\circ),$$

* The arguments for January 1 of each year from 1850 to 1950 are given upon pages 195–204, Part II, U. S. Coast and Geodetic Survey Report for 1894.

† Strictly speaking, it is assumed to occur 0.911 $(K_1^\circ - O_1^\circ)$ hours after the moon's extreme declination, as shown below

respectively, where the letters are the epochs or lags (κ) of the harmonic components represented by them; their numerical values can be found in Table 4, for each of the seventy standard ports; and these ages are usually nearly constant over a considerable area. These times represent the retard of the spring and neap, the perigean and apogean, and the tropic tides, respectively, behind their astronomical causes.

Tropic diurnal inequality (HWQ, LWQ) as here used denotes the greatest periodic difference in height between two consecutive high waters or low waters, usually occurring soon after the moon is farthest north or south from the equator; this inequality is determined by the tropic tides, although the smaller inequality at some stations may not then have, even approximately, its maximum value.

Diurnal wave is that portion of the tide whose period is approximately one day.

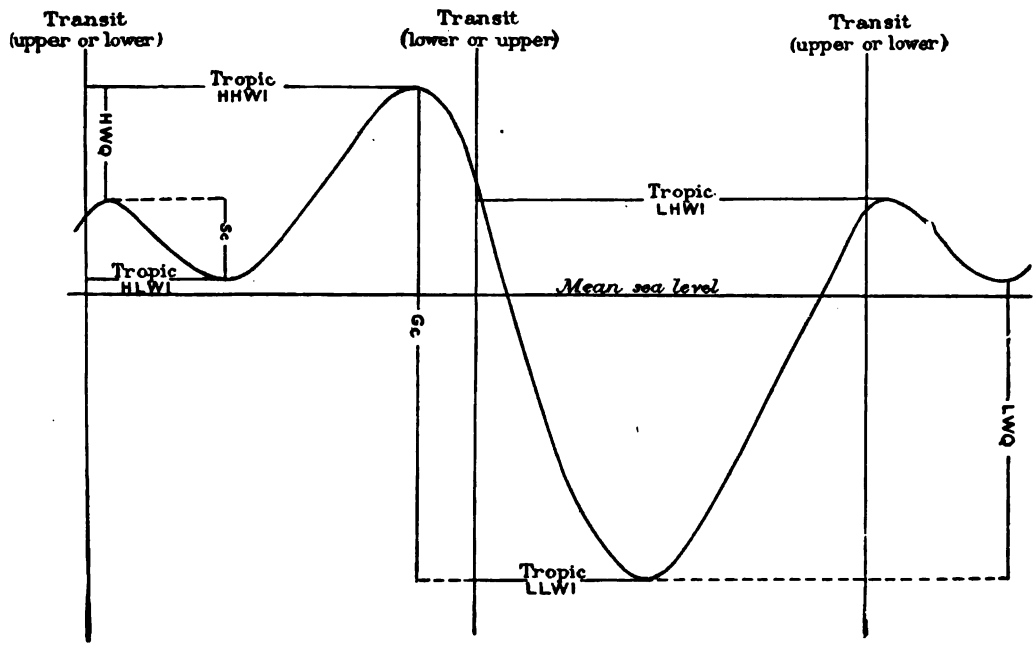

Fig. 2.

Sequence of tide is the order in which the four tides of a day occur, particularly when the moon is far from the equator. It may be expressed thus, HHW to LLW or LLW to HHW as the case may be. The $\frac{\text{former}}{\text{latter}}$ expression indicates that tropic LLW $\frac{\text{follows}}{\text{precedes}}$ tropic HHW without the lesser tides intervening. The time between tropic $\frac{\text{HHW}}{\text{LLW}}$ and tropic $\frac{\text{LLW}}{\text{HHW}}$ must be taken as less than a half lunar day. At some stations it is necessary to have both sun and moon far from the equator in order to fix the sequence.

Type of tide is the characteristic form of the tide. It is generally indicated by the sequence of tides, together with the ratios of each of the tropic diurnal inequalities, and of the spring range, to the mean range. For shallow waters, however, in rivers especially, the duration of rise or fall may become very important.

Figure 2 illustrates the tropic tides and quantities connected with them at San Francisco. In this case the tide is largely diurnal, the sequence is HHW to LLW, and LWQ>HWQ.

9. *Approximate theoretical relations between the various ranges, intervals, planes of reference, etc.*

$$2\,\mathrm{Mn} = \mathrm{Sg} + \mathrm{Np} + \tfrac{1}{4}\frac{(\mathrm{Sg}-\mathrm{Np})^2}{\mathrm{Sg}+\mathrm{Np}}.$$

$$2\,\mathrm{Mn} = \mathrm{Gt} + \mathrm{Sl}.$$

$$\mathrm{Gc} - \mathrm{Sc} = \mathrm{HWQ} + \mathrm{LWQ}.$$

For the great diurnal range (Gt) three cases are considered:

(1) $\mathrm{Gt} = \frac{3}{4}\mathrm{Gc} + \frac{1}{4}\,\mathrm{Mn}$, when either HWQ or LWQ (or both) exceeds $\frac{\mathrm{Mn}}{4}$.

(2) $\mathrm{Gt} = \mathrm{Mn} + \frac{1}{3}\,(\mathrm{HWQ} + \mathrm{LWQ})$, when both HWQ and LWQ are less than $\frac{\mathrm{Mn}}{4}$.

(3) $\mathrm{Gt} = 0.64\left(\mathrm{Gc} + \frac{[\mathrm{Mn}]^2}{\mathrm{Gc}}\right)$, when the tide is chiefly diurnal.

For the depression of mean lower low water below mean low water three cases are considered:

(1) $\mathrm{LW} - \mathrm{LLW} = \frac{\mathrm{LWQ}}{3} + \frac{.04\,(\mathrm{Gc}-\mathrm{Mn})^2}{\mathrm{LWQ}}$, when $\mathrm{LWQ} > \mathrm{HWQ}$, and also exceeds $\frac{\mathrm{Mn}}{4}$.

(2) $\mathrm{LW} - \mathrm{LLW} = \frac{3}{4}(\mathrm{Gc} - \mathrm{Mn}) - \frac{\mathrm{HWQ}}{3} - \frac{.04\,(\mathrm{Gc}-\mathrm{Mn})^2}{\mathrm{HWQ}}$, when $\mathrm{HWQ} > \mathrm{LWQ}$, and also exceeds $\frac{\mathrm{Mn}}{4}$.

(3) $\mathrm{LW} - \mathrm{LLW} = \frac{\mathrm{LWQ}}{3}$, when HWQ and LWQ are each less than $\frac{\mathrm{Mn}}{4}$.

When the tide is chiefly diurnal there is no mean low water, in the sense in which it is used above.

In obtaining the duration of rise or fall of tide from the following equations, add $12^h\ 25^m$ when necessary to make the result positive.

$$\text{Duration of rise} = \mathrm{HWI} - \mathrm{LWI}.$$

$$\text{Duration of fall} = \mathrm{LWI} - \mathrm{HWI}.$$

The sum of the four tropic lunitidal intervals is equal to twice the sum of the two mean intervals, thus:

$$\mathrm{HHWI} + \mathrm{LHWI} + \mathrm{HLWI} + \mathrm{LLWI} = 2\,(\mathrm{HWI} + \mathrm{LWI}.)$$

In Table 3, of these Tide Tables, only two of the tropic intervals are given, and the other two tropic intervals may be obtained from the following approximate relations:

$$\text{Tropic LHWI} = 2\ \mathrm{HWI} - \text{tropic HHWI},$$

$$\text{Tropic HLWI} = 2\ \mathrm{LWI} - \text{tropic LLWI}.$$

The heights of the tide are all referred to some one of the following three planes of reference: Mean low water, mean low-water springs, and mean lower low water. The definition of each plane as used in these tables is given here by an expression which indicates its depression in feet below mean sea level.

(1) *Mean low water* $= \frac{\mathrm{Mn}}{2}$, where Mn is the mean semidiurnal range.

(2) *Mean low water springs* $= \frac{\mathrm{Sg}}{2}$, where Sg is the mean range of spring tide.

(3) *Mean lower low water* depends upon the diurnal inequalities in high and low water, and there are four cases considered:

(*a*) $= \frac{\mathrm{Mn}}{2} + \frac{\mathrm{LWQ}}{3} + \frac{.04\,(\mathrm{Gc}-\mathrm{Mn})^2}{\mathrm{LWQ}}$, when $\mathrm{LWQ} > \mathrm{HWQ}$, and exceeds, say, $\frac{\mathrm{Mn}}{4}$.

(*b*) $= \frac{3\mathrm{Gc}}{4} - \frac{\mathrm{Mn}}{4} - \frac{\mathrm{HWQ}}{3} - \frac{.04(\mathrm{Gc}-\mathrm{Mn})^2}{\mathrm{HWQ}}$, when $\mathrm{HWQ} > \mathrm{LWQ}$, and exceeds, say, $\frac{\mathrm{Mn}}{4}$.

(*c*) $= \frac{\mathrm{Mn}}{2} + \frac{\mathrm{LWQ}}{3}$, when HWQ and LWQ are each less than about $\frac{\mathrm{Mn}}{4}$.

(*d*) $= 0.64\left(1 + \frac{[\mathrm{Mn}]^2}{\mathrm{Gc}^2}\right)$ (Mean sea level − tropic LLW), when the tide is chiefly diurnal.

10. *The effects of the moon's parallax and phases upon the times and heights of the tides.* The tables given below enable one to approximately take account of the effect of the moon's distance upon the range of tide, and also the variations in time and height due to the relative positions of the sun and moon.

FACTOR EXPRESSING THE EFFECT OF THE MOON'S PARALLAX UPON THE MEAN RANGE OF TIDE.

	Time.	Factor q.		Time.	Factor q.		Time.	Factor q.		Time.	Factor q.
	d.			*d.*			*d.*			*d.*	
After perigean tides.	0	1.17	Before apogean tides.	7	0.99	After apogean tides.	0	0.86	Before perigean tides.	7	0.98
	1	1.16		6	0.96		1	0.86		6	1.02
	2	1.15		5	0.93		2	0.87		5	1.06
	3	1.13		4	0.90		3	0.88		4	1.09
	4	1.09		3	0.88		4	0.90		3	1.13
	5	1.06		2	0.87		5	0.93		2	1.15
	6	1.02		1	0.86		6	0.96		1	1.16
	7	0.98		0	0.86		7	0.99		0	1.17

In making use of these tables for prediction purposes, the mean range (Mn) should be first multiplied by the factor q expressing the parallax effect; this corrected range should then be used in ascertaining the variation due to phase in the lunitidal interval and in obtaining the semirange of tide.

TABLE OF PHASE EFFECTS.

	Time.		Increase in lunitidal intervals.		Increase in semirange of tide.			Time.		Increase in lunitidal intervals.		Increase in semirange of tide.		Date.		Factor p.*
	d.	*h.*	*m.*					*d.*	*h.*	*m.*						
After spring tides.	0	00	0	$\frac{Sg-Np}{Mn\times q}$	$+.23p(Sg-Np)$		After neap tides.	0	00	0	$\frac{Sg-Np}{Mn\times q}$	$-.29p(Sg-Np)$		Jan.	1	0.82
	0	06	−5	"	+.23	"		0	06	+13	"	−.29	"		11	0.88
	0	12	−10	"	+.23	"		0	12	+25	"	−.28	"		21	0.96
	0	18	−14	"	+.22	"		0	18	+35	"	−.27	"		31	1.04
	1	00	−19	"	+.21	"		1	00	+44	"	−.25	"	Feb.	10	1.13
	1	06	−23	"	+.20	"		1	06	+52	"	−.23	"		20	1.20
	1	12	−28	"	+.19	"		1	12	+58	"	−.21	"	Mar.	2	1.25
	1	18	−32	"	+.18	"		1	18	+62	"	−.18	"		12	1.27
	2	00	−37	"	+.17	"		2	00	+65	"	−.16	"		22	1.28
	2	06	−41	"	+.15	"		2	06	+66	"	−.13	"	Apr.	1	1.26
	2	12	−44	"	+.13	"		2	12	+67	"	−.10	"		11	1.22
	2	18	−49	"	+.11	"		2	18	+67	"	−.08	"		21	1.14
	3	00	−52	"	+.09	"		3	00	+66	"	−.05	"	May	1	1.06
	3	06	−56	"	+.07	"		3	06	+64	"	−.02	"		11	0.96
	3	12	−59	"	+.04	"		3	12	+62	"	.00	"		21	0.87
	3	18	−61	"	+.02	"		3	18	+60	"	+.03	"		31	0.77
	4	00	−63	"	+.01	"		4	00	+57	"	+.05	"	June	10	0.71
															20	0.67
															30	0.68
														July	10	0.74
															20	0.82
Before neap tides.	4	00	−57	"	+.05	"	Before spring tides.	4	00	+63	"	−.01	"		30	0.92
	3	18	−60	"	+.03	"		3	18	+61	"	+.02	"	Aug.	9	1.01
	3	12	−62	"	.00	"		3	12	+59	"	+.04	"		19	1.10
	3	06	−64	"	−.02	"		3	06	+56	"	+.07	"		29	1.18
	3	00	−66	"	−.05	"		3	00	+52	"	+.09	"	Sept.	8	1.23
	2	18	−67	"	−.08	"		2	18	+49	"	+.11	"		18	1.26
	2	12	−67	"	−.10	"		2	12	+44	"	+.13	"		28	1.26
	2	06	−66	"	−.13	"		2	06	+41	"	+.15	"	Oct.	8	1.24
	2	00	−65	"	−.16	"		2	00	+37	"	+.17	"		18	1.20
	1	18	−62	"	−.18	"		1	18	+32	"	+.18	"		28	1.14
	1	12	−58	"	−.21	"		1	12	+28	"	+.19	"	Nov.	7	1.06
	1	06	−52	"	−.23	"		1	06	+23	"	+.20	"		17	0.97
	1	00	−44	"	−.25	"		1	00	+19	"	+.21	"		27	0.89
	0	18	−35	"	−.27	"		0	18	+14	"	+.22	"	Dec.	7	0.83
	0	12	−25	"	−.28	"		0	12	+10	"	+.23	"		17	0.79
	0	06	−13	"	−.29	"		0	06	+5	"	+.23	"		27	0.80
	0	00	0	"	−.29	"		0	00	0	"	+.23	"	Jan.	6	0.85

*The factor p applies to the "increase in the semirange of tide," and not to the "increase in lunitidal intervals." It is due to the declinations of the sun and moon and to the solar parallax.

In the column headed "Increase in lunitidal intervals" the negative values are often spoken of as the *priming* and the positive ones as the *lagging* of the tide.

The *vulgar establishment*, being the interval at "full and change," may be obtained from the mean lunitidal interval by entering this table as many hours before spring tides as are contained in the age of the phase inequality, § 8.

11. *Tidal currents.*

The *velocity* (*drift*) of a current is the rate at which the fluid particles move horizontally. It is usually expressed in knots, i. e., nautical miles, per hour, but sometimes in feet per second. The velocity generally differs for different depths, but its value at the surface may be understood unless otherwise specified. The velocity of propagation of the tidal wave is many times greater than the velocity of the current, and the two must not be confounded.

The *direction* (*set*) of a current is the direction or point of the compass toward which the fluid particles move.

The movement of the fluid in one direction, usually inland, is styled *flood*, and in the opposite direction, *ebb*. The two are not always distinct, and, even if they are, it is not always possible to know which movement should be taken for the flood and which for the ebb.

Slack water denotes the state of the current when its velocity becomes a minimum.

The effect of the tidal wave in giving rise to currents may be seen in two simple cases:

(1) Where there is a small tidal basin connected with the sea by a large opening.

(2) Where there is a large tidal basin connected with the sea by a very small opening.

In the first case the velocity of the current in the opening will have its maximum value when the height of the tide within is changing most rapidly, i. e., at a time about midway between high and low water. The water in the basin keeps at approximately the same level as that of the water outside. Flood corresponds to the rising, and ebb to the falling tide within. E. g. the Golden Gate, Cal.

In the second case the velocity of the current in the opening will have its maximum value when it is high water or low water without; for then there is the greatest head of water for producing motion. Flood begins about three hours after low water, ebb about three hours after high water; that is, slack water occurs at times about midway between the tides.

In an unobstructed wave, the flood velocity is a maximum at about the time of high water, and the ebb velocity becomes a maximum near the time of low water.

In a stationary wave, the slack waters are almost simultaneous with the high and low waters.

In some bodies of water, particularly long channels, such as tidal rivers, the directions of the currents are obviously governed by the trend of the banks; but in broader bodies, especially near the heads of gulfs and bays, the directions taken by the particles of water are not easily explained. It is quite common in such cases to find no true slack water, while the direction of the current shifts continually with the varying phases of the tide.

12. *References.*

The Tides and Kindred Phenomena in the Solar System, by George Howard Darwin, 1898.
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A Manual of Tidal Observations, Maj. A. W. Baird [London, Taylor & Francis].
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Thomson's and Tait's Natural Philosophy, §§ 804–848.

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Philosophical Transactions since 1830; articles by J. W. Lubbock, Rev. W. Whewell, Sir G. B. Airy, Sir William Thomson, Prof. G. H. Darwin.

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Newton's Principia, Book I, Prop. LXVI; Book III, Props. XXIV, XXXVI, and XXXVII.

Laplace's Traité de Mécanique Céleste, Books IV and XIII.

Bibliographie générale de l'Astronomie, Houzeau and Lancaster [Brussels, 1882], Vol. II, contains a bibliography of all papers on the theory of tides since the time of Newton.

List and Catalogue of the Publications issued by the United States Coast and Geodetic Survey, 1816 to 1902, published in 1902. See under head of Physical Hydrography.

EXPLANATION OF TABLES.

ON THE PREPARATION, ARRANGEMENT, AND USE OF THESE TIDE TABLES.

In attempting to extend the tide tables to all waters, the Survey has utilized information from a variety of foreign sources. The chief of these are: The Proceedings of the Royal Society of London, 1885, 1889; reports on the operations of the Survey of India Department; the British, German, French, and other tide tables; observations and results furnished to the Survey through our foreign consulates; observations loaned on special requests, and voluntary contributions from several hydrographic surveys. See acknowledgments in Preface.

Table 1, pages 46–324.—This table gives full predictions (that is, tabulated high and low waters) for seventy stations. They have been made by means of the Ferrel tide-predicting machine described in Appendix 10 of the Superintendent's Report for 1883. The harmonic constants underlying these predictions are given in Table 4, where will also be found the lengths of the series of observations analyzed.

A note at the bottom of each page shows the kind of time used and the plane from which the heights are reckoned.

For convenience, the phases of the moon, together with the times of its extreme distances and declinations, are given in connection with the calendar of each station. More exact values will be found in Tables 7 and 8.

Table 2, pages 325–329.—The first three pages of this table afford a ready means of finding the approximate height of the tide at any intermediate time between high and low water for those ports on the Atlantic coast of the United States for which full predictions are given. This table may be extended to the subordinate stations (given in Table 3) referred to these principal stations by multiplying its values by the ratio of mean ranges, provided the duration of rise or fall is sensibly the same at the subordinate as at the principal station. Tables 2A and 2B have been so designated in order to avoid changing the number of the tables which follow. Table 2A is an auxiliary table by means of which Table 2B may be adapted to almost any kind of tide, whether semidiurnal or diurnal. It is believed that these tables will be found more satisfactory than any general tables which have ever been published heretofore for finding the height between the times of high and low water.

Table 3, pages 330–443.—This table gives the following items:

First. A list of about 3,000 tidal stations arranged in geographic order; the names of the seventy stations of Table 1 are printed in small capitals.

Second. Their approximate geographic position. If we put S and L for the west longitudes in time of the standard time and local meridians, respectively, the correction to change standard to local time is

$$S-L,$$

and the correction to change local to standard time is

$$L-S.$$

Third. The standard or principal port to which they are referred.

Fourth. The differences and ratios to be applied to the predicted times and heights of the principal port, Table 1, for obtaining the tides at any given subordinate port. The tides so obtained are already expressed in the kind of time given in connection with these differences.

The time differences are computed as follows:

$$\text{Difference for time of HW}=(\text{HWI})_{,,}-(\text{HWI})_{,}\pm S_{,}\mp S_{,,}+1\tfrac{1}{30}\,(\pm L_{,,}\mp L_{,})+n\,(12^{h}\,25^{m}).$$

$$\text{Difference for time of LW}=(\text{LWI})_{,,}-(\text{LWI})_{,}\pm S_{,}\mp S_{,,}+1\tfrac{1}{30}\,(\pm L_{,,}\mp L_{,})+n\,(12^{h}\,25^{m}).$$

Single subscripts refer to the principal station, and double subscripts to the subordinate station. The upper sign is used for west longitude and the lower one for east longitude.

L=the longitude of the station in time.

S=the longitude of the time meridian used.

$n=0$ when the corresponding tropic intervals at both stations are marked with the same letter.

$n=\pm 1$ when the corresponding tropic intervals at the two stations are marked with different letters, the sign giving the smaller result being usually preferred.

$n=\pm 2$ when the tide is chiefly diurnal, and the tropic intervals at the two stations are marked with different letters; also when the two stations are situated upon opposite sides of the day-line in the Pacific Ocean.

Sometimes when the corresponding height inequalities are small the markings of the tropic intervals at the two stations are ignored in computing the time difference. For stations where the tide is chiefly diurnal the tropic intervals are compared to get the time differences. If the Russian calendar is desired for Siberian or other stations, subtract thirteen days from the dates given by application of the differences.

If the subordinate station is properly referred, the times of high and low water ought to be correctly given by means of the tidal differences, and in the kind of time indicated in these columns, without regard to the time used for the standard port.

The height differences are computed as follows:

$$\text{Difference for height of HW}=[D_{,,}+\tfrac{1}{2}\,(\text{Mn})_{,,}]-[D_{,}+\tfrac{1}{2}\,(\text{Mn})_{,}]$$

$$\text{Difference for height of LW}=[D_{,,}-\tfrac{1}{2}\,(\text{Mn})_{,,}]-[D_{,}-\tfrac{1}{2}\,(\text{Mn})_{,}]$$

where $D_{,}$ and $D_{,,}$ are the depressions below mean sea level of the planes of reference at the standard and subordinate ports, respectively, as given in Table 3.

The heights of the tides are referred to one of three planes of reference: Mean low water, mean lower low water, and mean low water springs, § 9.

The differences may be used without material error only when the ratio of ranges is not far from unity. The heights thus obtained are reckoned from the plane of reference indicated in the difference columns, no matter what plane has been used for the predictions at the standard port. The approximate depression of this plane below mean sea level is given on the opposite page, in the third column from the last.

In no case should the height differences be used, except for very rough results, where the ratio of ranges differs as much, say, as 25 per cent from unity. By multiplying the predicted heights of high and low waters at the standard port by the ratio of ranges, a much better estimation of the heights at the subordinate station can always be obtained. When the ratios are used, the resulting heights will be reckoned from the plane of reference used for the standard port, and its relation to mean sea level at the subordinate port can be found by multiplying the corresponding value for the standard port, which is given at the foot of each page of predictions, by the ratio of ranges, as shown in the example beyond.

Fifth. Lunitidal intervals, mean and tropic. See §§ 1, 8, 9, and 10. The tropic lunitidal intervals marked *a* are to be added to the time of the moon's upper transit for north declination, and to the lower transit for south declination of the moon; those intervals marked *b* are to be added to the time of the moon's upper transit for south declination, and to the lower transit for north declination of the moon. It is to be noted that the values given are for tropic higher high and lower low water, and not for the tropic lower high and higher low water. To obtain such an interval approximately, change the letters *a* and *b* and find an interval as much greater than the mean interval as the given tropic interval is less. (See page 22.)

Sixth. Ranges of tide: Mean, spring, neap, and great tropic. See §§ 8, 9, and 10. In some localities the tide is chiefly diurnal—that is, usually only one high and one low water occur in twenty-four hours; for such places the columns for mean intervals and ranges are either left vacant, or else the given values have been inclosed in brackets. The bracketed values are for the semidiurnal part of the tide, and generally occur in nature only for a day or two while the moon is near the equator.

Seventh. Tropic diurnal inequalities in height. See § 8.

Eighth. Tropic range and interval of the diurnal portion of the tide. The interval is reckoned from an upper north or a lower south transit. It is hoped that the interval column, now largely vacant, may eventually be filled out, thus enabling one to trace the progress of the diurnal wave over the earth's surface.

Ninth. The position of the plane of predictions and of the tropic lower low water with respect to mean sea level. The former is of use in comparisons between observations and the predictions which are obtained by applying the differences for heights, as the local mean sea level can be approximately determined from a few readings of the tide staff. The latter, in connection with the data given in the other columns, enables one to construct a type curve for the locality similar to that given in paragraph 8.

Tenth. The variation of the compass for the year 1904.

Items here numbered five to nine (i. e., the right-hand page of Table 3) are intended for such nonharmonic quantities as best describe the tide, showing its character, magnitude, relation to the moon's transits and to mean sea level. See Fig. 2, § 8. The tidal differences and ratios are dependent upon these quantities.

This table is at present very imperfect, owing to a want of properly distributed observations upon which to base conclusions and to a want of time in which to utilize the observations already at hand. Improved values will be substituted from year to year wherever the present ones may prove to be erroneous, and all persons are urged to send information for correcting these Tide Tables to the Superintendent, Coast and Geodetic Survey, Washington, D. C., U. S. A.

Table 4, pages 444–447.—This table gives the amplitudes and epochs of the harmonic constants used in making the predictions for the principal tidal stations, together with the lengths of the series of observations used in their determination and the sources from which they were obtained.

Table 5, pages 448–449.—This table gives the variations in mean sea level due to the annual and semiannual components for such of the ports for which full predictions are given as our information permits. This table gives the value of

$$\text{Sa} \cos (h - \text{Sa}^\circ) + \text{Ssa} \cos (2h - \text{Ssa}^\circ)$$

or the height of the mean sea level at any time above the mean sea level for the year; h is the mean longitude of the sun $= (\frac{4}{3})^\circ \times$ day of year $- 80^\circ$; Sa, Sa° are the amplitude and epoch of the annual component, and Ssa, Ssa° the same for the semiannual component, the values of which are given in Table 4.

The heights in these Tide Tables have been reckoned from some mean plane which is regarded as fixed throughout the year, but the changes in surface level due to season of the year arising from meteorological causes are given in Table 5 for the first and sixteenth of each month. For instance, at St. Johns, Newfoundland, from November to February the sea is above its mean level, and from April to September it is below its mean for the whole year.

Table 6, pages 450–451, gives the Greenwich mean civil time of the transit of the moon across the meridian of Greenwich, together with the equation of time for Greenwich apparent noon.

To adapt this table to the local time of another meridian, *add* 2.1 minutes (or more accurately, the tabular hourly difference) for each hour or 15° of *west* longitude, and *subtract* the same for *east* longitude. To convert this result into standard time, add $L - S$, or to express the result directly in standard time, add

$$1.035\ L - S$$

where L and S are the west longitudes in time of the local meridian and of the time meridian, respectively.

Tables 7 and 8, page 452, give the Greenwich mean civil times of the moon's phases, extreme distances, and declinations. To adapt these tables to any other meridian than that of Greenwich, *subtract* the longitude in time when it is *west* and *add* it when *east*. To express the result in standard time, S, subtract S hours from the tabular values.

Table 9, pages 453–482.—This table gives the direction and velocity of the current at certain stations on the Atlantic coast of the United States for three hours before and three hours after high and low water. Current diagrams have been prepared in the Tidal Division of this Office, showing the currents in Boston Harbor, Nantucket and Vineyard Sounds, New York Harbor, Delaware Bay, and Chesapeake Bay. The predicted times of every slack water in the year 1904 are given for Seymour Narrows, B. C., and Sergius Narrows, Alaska. Some brief notes are also added in regard to the times of slack current at a few other places on the Pacific coast. See examples 7–12, pages 35–37.

Table 10, pages 483–503.—This table gives the mean local civil time of the rising and setting of the sun's *upper limb* for every fifth day of the year, and practically for all latitudes from the equator to either pole. The observer's eye is supposed to be 15 feet above the sea level or above the plane of land. The table was computed by applying the equation of time to the hour angle given by the formula

$$\cos t = \frac{\cos \zeta \sin \varphi \sin \delta}{\cos \varphi \cos \delta} = \cos \zeta \sec \varphi \sec \delta - \tan \varphi \tan \delta,$$

in which

$t =$ the hour angle of the sun;
$\varphi =$ the latitude of the station (+ if north, − if south);
$\delta =$ the sun's declination (+ if north, − if south);
$\zeta =$ the sun's zenith distance $= 90^\circ\ 56'\ 09'' = 90^\circ + r + s - \pi + d,$

where

r = the refraction in the horizon	= 36′ 29″
s = the sun's semidiameter	= 16 01
π = the sun's horizontal parallax	= 0 09
d = the dip of the horizon for a height of 15 feet	= 3 48

The particular values of the declination used were obtained in the following way: A mean of the sun's declination at Greenwich apparent noon for the same dates between March 1, 1901, and March 1, 1905, was taken for every fifth day; also a mean value for the variation in declination for one hour was found in the same way. From these quantities a mean value of the declination for six hours before and six hours after Greenwich apparent noon was found for each date. The former were used as the values of the declination for computing the times of sunrise, and the latter for computing the times of sunset. A mean value for the equation of time was found similarly for the same dates and applied to the values obtained by the formula.

The times of sunrise and sunset are exact for the given declinations. If accuracy is desired, enter the table with the declination as an argument, interpolating when necessary. A table of this kind, using dates as an argument, will not apply equally well to all years, but the "Approximate date" of these tables will rarely be a whole day too early or too late. Hence, it will usually suffice to enter the table with the date as an argument, thus avoiding the necessity of ascertaining the sun's declination. The error resulting from using the approximate date as the true one varies with the season of the year, for near the solstices it will be practically nothing for all ordinary latitudes, and near the equinoxes it may in extreme cases be as much as two minutes in latitude 50°.

The critical declinations for failure to rise or set were obtained by the following formulas:

$$\text{Failure to rise when } \delta = \mp 90^\circ\ 56'\ 09'' + \varphi$$
$$\text{Failure to set when } \delta = \pm 89^\circ\ 03'\ 51'' - \varphi$$

the upper sign being used for north latitudes and the lower for south.

Whenever the sunlight exceeds twenty-four hours the limiting dates are given between which any portion of the sun, however small, remains visible, and the corresponding dates are also given whenever the sun remains entirely invisible for more than twenty-four hours. The dates were obtained by means of the mean values of the declination and are therefore only approximate.

The duration of sunlight may be found by adding 12^h to the time of setting and subtracting the time of rising from the sum. The difference in the duration of sunlight for the forenoon and afternoon of the same day, which sometimes amounts to more than half an hour, is twice the equation of time, slightly modified by the sun's motion in declination between rising and setting.

The sun's zenith distance, $\zeta = 90^\circ\ 56'\ 09''$, was taken as constant, for the variation of refraction in the horizon is the only element which might produce a sensible change in the time of rising or setting, and it is impossible to estimate these variations in advance. Fortunately, however, there will rarely be any material error in the table from this source, for even under the most extreme changes in atmospheric temperature and pressure, refraction in the horizon can not vary more than about 8′ on either side of its mean value, which at the time of the local summer solstice, when its greatest possible effect is produced, would make only a few seconds' difference in time of rising or setting near the equator, the correction becoming a whole minute in latitude 48°, two minutes in latitude 61°, and in higher latitudes the effect rapidly increases as the pole is approached. Hence, as the usual variations in refraction are much less than the above, it is believed that the table will generally be found

correct to the nearest minute for all usual latitudes, but may occasionally be out from three to five minutes or more in very high latitudes.

Table 11, page 504.—This table gives the reduction of local mean time to standard meridian time. Whenever standard time is used, the values given in Table 10 must be corrected by the difference of longitude in time between the station and its standard meridian, by means of Table 11.

EXAMPLES OF THE USE OF TABLES.

Tables 1, 3, and 6, Examples 1 to 6.

Example 1.—Find the times and heights of high and low waters at Pulpit Harbor, Me., August 12, 1904.

For the State of Maine the index refers to page 338, indicating the beginning of the portion of Table 3 in which Pulpit Harbor is found in its geographic sequence. The standard port for reference is there seen to be Boston, page 63.

	Standard time.	Height.
	h. m.	*Feet.*
Page 65. First LW at Boston, August 12, 1904	5 31	− 2.0
Page 340. LW differences for Pulpit Harbor	− 0 36	0.0
First LW at Pulpit Harbor, August 12, 1904	4 55	− 2.0
Page 65. First HW at Boston, August 12, 1904	11 40	10.8
Page 340. HW differences for Pulpit Harbor	− 0 33	+ 0.3
First HW at Pulpit Harbor, August 12, 1904	11 07	11.1
Page 65. Second LW at Boston, August 12, 1904	17 50	− 1.4
Page 340. LW differences for Pulpit Harbor	− 0 36	0.0
Second LW at Pulpit Harbor, August 12, 1904	17 14	− 1.4
Page 65. First HW at Boston, August 13, 1904	0 04	11.6
Page 340. HW differences for Pulpit Harbor	− 0 33	+ 0.3
Second HW at Pulpit Harbor, August 12, 1904	23 31	11.9

0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, $23^h\ 31^m$ is $11^h\ 31^m$ p. m.

If, for any reason, local time is desired, it may be obtained from the column of Table 3 headed "Longitude in time" by subtracting this longitude for the station from the standard time meridian and applying this difference, according to sign, to the predictions given by these tables. For instance, the standard time meridian at Pulpit Harbor is 5^h, and the local longitude is $4^h\ 36^m$; hence $5^h - 4^h\ 36^m = +24^m$ is the correction to change standard to local time at Pulpit Harbor. But it must be borne in mind that local time is rarely used in the United States.

Example 2—Rough predictions without the use of Table 1.—Find the approximate times and heights of high and low waters at Pulpit Harbor, Me., for the date given in Example 1, without making use of Table 1.

At this station the diurnal and phase inequalities being comparatively small, the approximate times of the tides may be obtained by adding the lunitidal intervals, Table 3, line 24,

page 341, to the moon's local transits, but for convenience Greenwich transits, Table 6, will be used directly, and the lunitidal intervals adapted to them by adding, once for all,

$$1.035L-S.$$

(See "Explanation of tables," page 28.) For Pulpit Harbor this is

$$(1.035\times4^h.6)-5^h=-0^h.24=-14^m.$$
$$\therefore \text{Adapted HWI}=11^h\ 02^m-14^m=10^h\ 48^m,$$
$$\text{Adapted LWI}=\ 4^h\ 49^m-14^m=\ 4^h\ 35^m.$$

	h. m.	h. m.
Page 451. Moon's transits, August 12, 1904	(0 29)	12 57
Adapted HWI	10 48	10 48
Standard times of HW's, August 12, 1904	11 17	23 45
Page 451. Moon's transits, August 12, 1904	(0 29)	12 57
Adapted LWI	4 35	4 35
Standard times of LW's, August 12, 1904	5 04	17 32

From Table 3 (pp. 340–341, line 24) we find Mn=9.9 feet, and that the plane of reference is mean low water. The time and height of tides, August 12, thus roughly predicted, would be

5 :04	11 :17	17 :32	23 :45	(a)
0.0	9.9	0.0	9.9	

The above example is given for the purpose of illustrating the use of a table of the moon's transits as a ready means for making approximate predictions for any year. For the year of the tide tables the method is not recommended, the preceding or following being easier of application and generally more exact.

Example 3.—Find the times and heights of high and low waters at Mare Island Light, California, January 16, 1904.

For the State of California the index refers to page 378, indicating the beginning of the portion of Table 3 in which Mare Island Light is found in its geographic sequence. The standard port for reference is there seen to be San Francisco Entrance, page 147.

	Standard time.	Height.
	h. m.	Feet.
Page 147. Second HW at San Francisco, January 15, 1904	23 35	4.6
Page 380. HW difference for Mare Island Light	+ 1 50	ratio 1.27
First HW at Mare Island Light, January 16, 1904	1 25	5.8
Page 147. First LW at San Francisco, January 16, 1904	4 00	3.0
Page 380. LW difference for Mare Island Light	+ 2 11	ratio 1.27
First LW at Mare Island Light, January 16, 1904	6 11	3.8
Page 147. First HW at San Francisco, January 16, 1904	10 19	5.8
Page 380. HW difference for Mare Island Light	+ 1 50	ratio 1.27
Second HW at Mare Island Light, January 16, 1904	12 09	7.4
Page 147. Second LW at San Francisco, January 16, 1904	17 08	−0.8
Page 380. LW difference for Mare Island Light	+ 2 11	ratio 1.27
Second LW at Mare Island Light, January 16, 1904	19 19	−1.0

The ratio is used instead of the height differences (see Table 3 and p. 27) because the range of tide at Mare Island Light differs considerably (viz, 27 per cent) from the range at San Francisco.

Example 4—A more accurate method for determining the height of the tide at a secondary station.—Find the heights of high and low waters at Mare Island Light, California, for the date given in Example 3.

It often happens that the ratio of ranges of the diurnal wave for the principal and subordinate stations is not equal to the ratio of their mean ranges. This implies that the types of the tides at the two places are not exactly similar. The following method, which is somewhat more elaborate than the one just exemplified, should be used if more carefully predicted heights are required:

(a) Find the times of the required tides as in the above example, and then copy the heights from the predictions for the standard port, beginning and ending so as to include at each end one high and one low water before and after the required heights; for distinction these extra heights may be inclosed in brackets.

(b) From Table 3 take out the following quantities, the notation used here being temporary:

r_2=the ratio of ranges.

$r_1=\frac{\text{tropic range diurnal wave secondary station.}}{\text{tropic range diurnal wave primary station.}}$

$D_{,}$=depression below mean sea level of reference plane at the standard port.

$D_{,,}$=depression below mean sea level of reference plane at the subordinate port.

(c) The high and low water inequalities (HWQ), (LWQ), given in Table 3, are for the *tropic tides*, and will not apply to other tides. To find the high-water inequality (HW ineq.) for any high water take the mean difference between its height and that of the preceding and following high waters of (a), and then multiply it by $\frac{1}{2}(r_2-r_1)$ of (b); the low-water inequality (LW ineq.) is found in a similar manner, and multiplied by the same factor. The inequality obtained by comparing a higher high water with the lower high waters on either side of it may be marked (HW ineq.)$_a$, and the inequality of which the lower high water is the middle height may be marked (HW ineq.)$_b$. Similarly the low-water inequalities are designated (LW ineq.)$_a$, and (LW ineq.)$_b$, for the lower low waters and higher low waters, respectively.

(d) The required heights are then given by the following equations, where single subscripts refer to heights at the standard and double subscripts to heights at the subordinate or required station:

$$(\text{HHW})_{,,}=[(\text{HHW})_{,}-D_{,}]r_2-(\text{HW ineq.})_a+D_{,,}$$
$$(\text{LHW})_{,,}=[(\text{LHW})_{,}-D_{,}]r_2+(\text{HW ineq.})_b+D_{,,}$$
$$(\text{LLW})_{,,}=[(\text{LLW})_{,}-D_{,}]r_2+(\text{LW ineq.})_a+D_{,,}$$
$$(\text{HLW})_{,,}=[(\text{HLW})_{,}-D_{,}]r_2-(\text{LW ineq.})_b+D_{,,}$$

Applying the above to the given example for Mare Island Light, the computation is as follows:

(a,) The heights from page 147, for San Francisco Entrance, are:

Jan. 15, 1904, — [5.8 −0.5] 4.6
Jan. 16, 1904, 3.0 5.8 −0.8 —
Jan. 17, 1904, [4.6 3.0] — —

(b,) The ratio of ranges is given on page 380, line 48, as r_2=1.27; to find $r_{,}$, observe on page 381, line 48, that the tropic range diurnal wave for Mare Island is 4.5, and line 20,

page 381, for San Francisco Entrance, the corresponding value is 4.0, hence $r_1=\frac{4.5}{4.0}=1.12$; on the same lines we find $D_{,}=3.2$, and $D_{,,}=3.8$. Of the unbracketed heights, 4.6 is the LHW, 3.0 the HLW, 5.8 the HHW, and −0.8 the LLW. Taking the mean of the differences between each of these and the preceding and following tide of same phase, we obtain the inequalities as shown below.

(c,) The high-water inequalities are:

5.8−4.6=1.2 for LHW	5.8−4.6=1.2 for HHW
5.8−4.6=1.2 for LHW	5.8−4.6=1.2 for HHW
Mean =1.20 for LHW	Mean =1.2 for HHW
Factor = .075=½ (r_2-r_1)	Factor = .075=½ (r_2-r_1)
Product=0.1 =(HW ineq.)$_b$	Product =0.1 =(HW ineq.)$_a$

The low-water inequalities are:

3.0−(−0.5)=3.5 for HLW	3.0−(−0.8)=3.8 for LLW
3.0−(−0.8)=3.8 for HLW	3.0−(−0.8)=3.8 for LLW
Mean =3.65 for HLW	Mean =3.80 for LLW
Factor = .075=½ (r_2-r_1)	Factor = .075=½ (r_2-r_1)
Product =0.3 =(LW ineq.)$_b$	Product =0.3 =(LW ineq.)$_a$

(d,) The required heights at Mare Island Light are therefore:

$$(LHW)_{,,}=(4.6-3.2)\times1.27+0.1+3.8=1.8+3.9=5.7 \text{ feet.}$$
$$(HLW)_{,,}=(3.0-3.2)\times1.27-0.3+3.8=-0.3+3.5=3.2 \text{ feet.}$$
$$(HHW)_{,,}=(5.8-3.2)\times1.27-0.1+3.8=3.3+3.7=7.0 \text{ feet.}$$
$$(LLW)_{,,}=(-0.8-3.2)\times1.27+0.3+3.8=-5.1+4.1=-1.0 \text{ feet.}$$

The heights by this process are reckoned from the plane given at the head of the columns of differences for heights in Table 3, which in this case is the mean of the lower low waters. In Table 5 are given the variations of mean sea level at many of the principal ports, from which one may roughly estimate the correction due to season of the year at the subordinate port. For the above example this correction happens to be nearly zero, but when it becomes significant it affects all heights alike.

Example 5—Rough predictions without the use of Table 1.—Find the approximate times and heights of high and low waters at Mare Island Light, Cal., for the date given in Example 3.

At this station the diurnal inequality is large, especially when the moon is far from the equator, as it is upon January 16, 1904. For such dates the times of tide become approximately known by adding the tropic intervals, properly adapted, as in Example 1, to the Greenwich transits, Table 6.

	h.	m.	h.	m.	h.	m.
Adapted tropic HHWI=0	10+0		26=0		36*b*	
Adapted tropic LLWI=7	29+0		26=7		55*b*	
Adapted HWI=1	05+0		26=1		31	
Adapted LWI=7	15+0		26=7		41	
Adapted tropic LHWI=2×1	31−0		36=2		26*a*	
Adapted tropic HLWI=2×7	41−7		55=7		27*a*	

	h. m.	h. m.
Page 450. Moon's transits, January 15, 16, 1904	(22 47)	11 12
Adapted tropic HWI's	2 26*a*	0 36*b*
Standard time of HW's, January 16, 1904	1 13	11 48
Page 450. Moon's transits, January 15, 16, 1904	(22 47)	11 12
Adapted tropic LWI's	7 27*a*	7 55*b*
Standard time of LW's, January 16, 1904	6 14	19 07

Table 3, page 381, line 48, gives 1.7 and 4.1 feet for the tropic diurnal inequality in HW and LW, respectively, and 4.7 feet for mean range. Consequently the higher high water should be about one-half the tropic diurnal inequality higher than mean HW, and the lower high water as much lower. So for the low waters. The heights of the four tides referred to mean low water are:

$$\begin{aligned} &\quad Ft. \quad Ft. \quad Ft. \\ HHW &= 4.7+0.8= 5.5, \\ LHW &= 4.7-0.8= 3.9, \\ HLW &= 0+2.0= 2.0, \\ LLW &= 0-2.0=-2.0 \end{aligned}$$

The predictions obtained from Table 1 are referred to the mean of the lower low waters, which is, by § 9,

$$\frac{4.1}{3}+\frac{.04\ (7.6-4.7)^2}{4.1}=1.5$$

feet below mean low water. The heights just obtained are, when referred to this plane and arranged in the order of occurrence,

LHW=5.4 feet, HLW=3.5 feet, HHW=7.0 feet, LLW=−0.5 foot.

Example 6.—Find the times and heights of high and low water at Shibayama, Japan, March 26, 1904.

For Japan the index refers to page 396, indicating the beginning of the portion of Table 3 in which Shibayama is found in its geographic sequence. The standard port for reference is there seen to be San Francisco Entrance, page 147.

	Standard time.	Height.
	h. m.	Feet.
Page 147. Second LW at San Francisco, March 26, 1904	13 18	0.2
Page 398. LW difference for Shibayama	−9 53	ratio 0.13
First LW at Shibayama, March 26, 1904	3 25	0.0
Page 147. Second HW at San Francisco, March 26, 1904	20 20	4.6
Page 398. HW difference for Shibayama	−10 17	ratio 0.13
First HW at Shibayama, March 26, 1904	10 03	0.6
Page 147. First LW at San Francisco, March 27, 1904	1 38	2.6
Page 398. LW difference for Shibayama	−9 53	ratio 0.13
Second LW at Shibayama, March 26, 1904	15 45	0.3
Page 147. First HW at San Francisco, March 27, 1904	7 37	5.3
Page 398. HW difference for Shibayama	−10 17	ratio 0.13
Second HW at Shibayama, March 26, 1904	21 20	0.7

These predictions for Shibayama are in Cosmopolitan or Standard time of the one hundred and thirty-fifth meridian east, and the date requires no alteration, because the one station is east of the day line and the other is west. In predicting tides from the moon's transits (see examples 1, 2), S and L for Shibayama become negative—i. e., they are reckoned eastward; if taken otherwise, the change of date introduced by going westward from Greenwich to Shibayama would have to be allowed for.

The heights are reckoned from the plane of mean lower low water, because they are proportional to those at San Francisco.

It may be noted that wherever height differences are used the heights obtained are supposed to be referred to the plane of reference given in the columns of height differences, Table 3; but when ratios are used the plane of reference at the subordinate station has the same definition with respect to the tides as has the plane used at the principal station.

Table 9—Current Tables, Examples 7 to 12.

Example 7.—Find the direction and velocity of the current in mid-channel south from Clark Island, Portsmouth Harbor, at noon, June 9, 1904.

From the current table, page 453, we find that the currents in this vicinity are referred to the tides at Portland, the predictions for which begin on page 59.

Upon referring to these predictions it is seen that noon, June 9, is about one hour before Portland low water. The current table, for station (5), page 453, shows that at such a time the direction of the current is N. 84° E., and that its velocity is 2.3 knots.

Example 8.—Find the times, referred to the Boston tides, of slack water and of strength of current in South Channel 1.2 miles N. 85° E. from Deer Island Light, Boston Harbor.

To find the times of slack with regard to high or low water, observe where the current table, for station (1), page 454, shows a sudden change of direction, which is between 0 and 1 hours after HW, and 0 and 1 hours after LW at Boston. In the first instance the velocities are 0.1 and 0.8 knot, which are to each other as 1 to 8, so that if the 60 minutes between 0 and 1 hours are divided into $1 + 8 = 9$ parts, one of these parts, or about 7 minutes, is the time elapsing to the middle of the slack. This slack occurs, therefore, at $0^h\ 07^m$ after HW, which shows that it is the slack before ebb. Near the second slack the velocities are as 1 to 9, so that if 60 minutes are divided into $1 + 9 = 10$ parts, one of these, or 6 minutes, represents the time in excess of 0 hours after LW to the slack before flood, which occurs, therefore, at $0^h\ 06^m$ after LW.

To find the times of strength of flood or ebb with regard to high or low water is not quite so simple as the preceding; but for most purposes it will suffice to determine these times very approximately by a mere inspection of the tables to note where the greatest velocities occur. Thus, for this example, the strength of flood is readily seen to be about $3^h\ 05^m$ before HW and the strength of ebb about $2^h\ 40^m$ before LW. More exact determinations of these times can be made by plotting the velocities upon profile paper.

The above times of slack and strength, with regard to the times of high and low water at Boston, may be regarded as constants for this station, for the table does not enable us to take into account the small fluctuations which these values undergo during a lunation. In order to turn these relative times into actual times for any given date, proceed as in Example 10.

Example 9.—Find the times, referred to the New York tides, of slack water and of strength of current at The Narrows, New York Harbor.

To find the times of slack, with regard to high or low water, note on the diagram, page 467, where the curves called "slack before flood" and "slack before ebb" cross the horizontal line opposite "The Narrows." For slack before flood this will be found to be about $2^h\ 20^m$ after LW, and for slack before ebb about $1^h\ 25^m$ after HW at New York.

The times of strength of flood and ebb are obtained from the diagram in a similar way, and are for strength of flood about $1^h\ 25^m$ before HW, and for strength of ebb about $2^h\ 00^m$ before LW at New York. The velocities are for flood, between 1.7 and 1.8 knots, and for ebb, between 2.2 and 2.3 knots, as shown by the small figures on the diagram.

The above times of slack and strength, with regard to the times of high and low water at New York, may be regarded as constants for this station, for the diagram does not enable us to take into account the small fluctuations which these values undergo during a lunation.

Example 10.—Find the Eastern Standard (seventy-fifth meridian) times of slack water and of strength of current at The Narrows, New York Harbor, for June 7, 1904.

	Standard time.	
	h. *m.*	*h.* *m.*
Page 80. Times of HW at New York, June 7, 1904	2 04	14 50
Example 9. Times of strength of flood at The Narrows before New York HW	1 25	1 25
Times of strength of flood at The Narrows, June 7, 1904	0 39	13 25
Page 80. Times of HW at New York, June 7, 1904	2 04	14 50
Example 9. Times of slack before ebb at The Narrows after New York HW	1 25	1 25
Times of slack before ebb at The Narrows, June 7, 1904	3 29	16 15
Page 80. Times of LW at New York, June 7, 1904	8 52	21 22
Example 9. Times of strength of ebb at The Narrows before New York LW	2 00	2 00
Times of strength of ebb at The Narrows, June 7, 1904	6 52	19 22
Page 80. Times of LW at New York, June 7, 1904	8 52	21 22
Example 9. Times of slack before flood at The Narrows after New York LW	2 20	2 20
Times of slack before flood at The Narrows, June 7, 1904	11 12	23 42

Example 11.—Find the lunicurrent intervals for the times of slack water and of strength of current for Example 9.

The port of reference for the currents in The Narrows is New York (Governors Island), the constants for which are found by the index to begin on page 350, and on the opposite page, line 9, the lunitidal intervals are given as $8^h\ 04^m$ and $2^h\ 06^m$, for high and low waters, respectively. Whenever the times of slack or strength are *before* high or low water, these times must be subtracted from the above lunitidal intervals in order to obtain the corresponding lunicurrent intervals; but whenever these times are *after* high or low water, add them to the lunitidal intervals.

Applying these rules to the times of slack and strength already found, and arranging the results in the order of their occurrence, we have:

	h.	*m.*	*h.*	*m.*	*h.*	*m.*
Lunicurrent interval for strength of ebb,	= 2	06	− 2	00	= 0	06
Lunicurrent interval for slack before flood,	= 2	06	+ 2	20	= 4	26
Lunicurrent interval for strength of flood,	= 8	04	− 1	25	= 6	39
Lunicurrent interval for slack before ebb,	= 8	04	+ 1	25	= 9	29

Whenever the lunitidal interval is less than the time of slack or strength and the latter has to be taken from the former, add $12^h\ 25^m$ to the lunitidal interval before making the subtraction. When the sum of the lunitidal interval and the time of slack or strength exceeds $12^h\ 25^m$, subtract that amount from the sum.

Example 12.—Find the lunicurrent intervals for one-quarter and for three-quarter ebb and flood, respectively, for the preceding example.

One-half of the sum of the lunicurrent intervals for slack before ebb and strength of ebb is called the lunicurrent interval for one-quarter ebb; and similarly, substituting flood for ebb, the interval for one-quarter flood is obtained. One-half of the sum of the lunicurrent intervals for strength of ebb and slack before flood gives the lunicurrent interval for three-quarter ebb, and exchanging the words ebb and flood gives the interval for three-quarter flood.

Whenever the two lunicurrent intervals between which the one-quarter or three-quarter points lie differ from one another more than 6 hours, find the half sum in the usual way, and if this half sum is less than $6^h\ 13^m$ increase it by that amount, but when the half sum exceeds $6^h\ 13^m$ diminish it by that amount. Do not add $6^h\ 13^m$ to or subtract it from any half sum unless the two lunicurrent intervals from which the sum was obtained differ by more than 6 hours. Applying these remarks to the example in hand, we have—

		h.	m.	h.	m.	h.	m.	h.	m.
Lunicurrent interval for three-quarter ebb,	$=\frac{1}{2}$	(0	06+	4	26)=			2	16
Lunicurrent interval for one-quarter flood,	$=\frac{1}{2}$	(4	26+	6	39)=			5	32
Lunicurrent interval for three-quarter flood,	$=\frac{1}{2}$	(6	39+	9	29)=			8	04
Lunicurrent interval for one-quarter ebb,	$=\frac{1}{2}$	(0	06+	9	29)+	6	13=11	01

If it is desired to find the time at which the phase of current corresponding to any given lunicurrent interval occurs before or after the time of tide at the port of reference, take the difference between the given lunicurrent interval and either the high or the low water lunitidal interval at the port of reference, according to which gives the less difference.

Tables 10 and 11.—Sunrise and Sunset, Examples 13 and 14.

Example 13.—Find the local mean time and standard time of sunrise at San Francisco, Cal., on April 3, 1904.

For San Francisco the latitude	= 37° 49′ N.
For San Francisco the longitude	=122° 29′ W.
For San Francisco Standard time meridian	=120° 00′ W.
The sun's declination on April 3, 1904, at 6 a. m.	= 5° 17′ N.

Approximate method.

	h.	m.
April 1, for lat. 38°, Table 10	5	45
Correction for 2 days		−03
Correction for 11′ latitude		00
Local mean time sunrise	5	42
Red. for long. 2° 29′ W., Table 11		+10
Standard time sunrise	5	52

Exact method.

	h.	m.
Decl. 6° 09′ N., for lat. 38° N., Table 10	5	37
Correction for 52′ declination		+04
Correction for 11′ latitude		00
Local mean time sunrise	5	41
Red. for long. 2° 29′ W., Table 11		+10
Standard time sunrise	5	51

Example 14.—Find the local mean time of sunset at Buenos Ayres on December 10, 1904.

For Buenos Ayres the latitude =34° 36′ S.
Sun's declination on December 10, at 7 p. m. =22° 57′ S.

Approximate method.

	h.	m.
December 12, for lat. 35° S., Table 10	7	08
Correction for 2 days		−02
Correction for 24′ latitude		−01
Local mean time sunset	7	05

Exact method.

	h.	m.
Decl. 23° 04′ S., for lat. 35° S., Table 10	7	08
Correction for 07′ declination		− 01
Correction for 24′ latitude		−01
Local mean time sunset	7	06

UNITED STATES LIFE-SAVING SERVICE.*

GENERAL INFORMATION.

Life-saving stations, lifeboat stations, and houses of refuge are located upon the Atlantic and Pacific seaboards of the United States, the Gulf of Mexico, and the Lake coasts.

All stations on the Atlantic coast from the eastern extremity of the State of Maine to Cape Fear, North Carolina, are manned annually by crews of experienced surfmen, from the 1st of September to the 1st of May following. Upon the Pacific coast they are opened and manned the year round, with the exception of the station at Cape Arago, which depends upon volunteer effort from the neighboring people in case of shipwreck.

All life-saving and lifeboat stations are fully supplied with boats, wreck guns, beach apparatus, restoratives, etc.

Houses of refuge are supplied with boats, provisions, and restoratives, but not manned by crews; a keeper, however, resides in each throughout the year, who, after every storm, is required to make extended excursions along the coast, with a view of ascertaining if any shipwreck has occurred and finding and succoring any persons that may have been cast ashore.

Houses of refuge are located exclusively upon the Florida coast, where the requirements of relief are widely different from those of any other portion of the seaboard.

Most of the life-saving and lifeboat stations are provided with the International Code of Signals, and vessels can, by opening communication, be reported; or obtain the latitude and longitude of the station, where determined; or information as to the weather probabilities in most cases; or, if crippled or disabled, a steam tug or revenue cutter will be telegraphed for, where facilities for telegraphing exist, to the nearest port, if requested.

All services are performed by the life-saving crews without other compensation than their wages from the Government.

Destitute seafarers are provided with food and lodgings at the nearest station by the Government as long as necessarily detained by the circumstances of shipwreck.

The station crews patrol the beach from 2 to 4 miles each side of their stations four times between sunset and sunrise, and if the weather is foggy the patrol is continued through the day.

Each patrolman carries Coston signals. Upon discovering a vessel standing into danger he ignites one of them, which emits a brilliant red flame of about two minutes' duration, to warn her off, or should the vessel be ashore, to let her crew know that they are discovered and assistance is at hand.

If the vessel is not discovered by the patrol immediately after striking, rockets or flare-up lights should be burned; or, if the weather be foggy, guns should be fired to attract attention, as the patrolman may be some distance away at the other end of his beat.

Masters are particularly cautioned, if they should be driven ashore anywhere in the neighborhood of the stations, especially on any of the sandy coasts where there is not much danger of vessels breaking up immediately, to remain on board until assistance arrives, and under no circumstances should they attempt to land through the surf in their own boats until the last hope of assistance from the shore has vanished. Often when comparatively smooth at sea a dangerous surf is running which is not perceptible 400 yards offshore, and the surf when viewed from a vessel never appears as dangerous as it is. Many lives have unnecessarily been lost by the crews of stranded vessels being thus deceived and attempting to land in the ship's boats.

The difficulties of rescue by operations from the shore are greatly increased in cases where the anchors are let go *after entering the breakers*, as is frequently done, and the chances of saving life correspondingly lessened.

INSTRUCTIONS.

RESCUE WITH THE LIFEBOAT OR SURFBOAT.

The patrolman, after discovering your vessel ashore and burning a Coston signal, hastens to his station for assistance. If the use of a boat is practicable, either the large lifeboat is launched from its ways in the station and proceeds to the wreck by water, or the lighter surfboat is hauled overland to a point opposite the wreck and launched, as circumstances may require.

Upon the boat reaching your vessel, the directions and orders of the keeper (who always commands and steers the boat) should be implicitly obeyed. Any headlong rushing and crowding should be prevented, and the captain of the vessel should remain on board, to preserve order, until every other person has left.

Women, children, helpless persons, and passengers should be passed into the boat first.

Goods or baggage will positively not be taken into the boat until all are landed. If any be passed in against the keeper's remonstrance, he is fully authorized to throw the same overboard.

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*This account is reproduced from the publications of the United States Life-Saving Service.

RESCUE WITH THE BREECHES BUOY OR LIFE CAR.

Should it be inexpedient to use either the lifeboat or surfboat, recourse will be had to the wreck gun and beach apparatus for the rescue by the breeches buoy or the life car.

A shot with a small line attached will be fired across your vessel.

Get hold of the line as soon as possible and haul on board until you get a tail block with a whip or endless line rove through it. This tail block should be hauled on board as quickly as possible to prevent the whip drifting off with the set or fouling with wreckage, etc. Therefore, if you have been driven into the rigging,

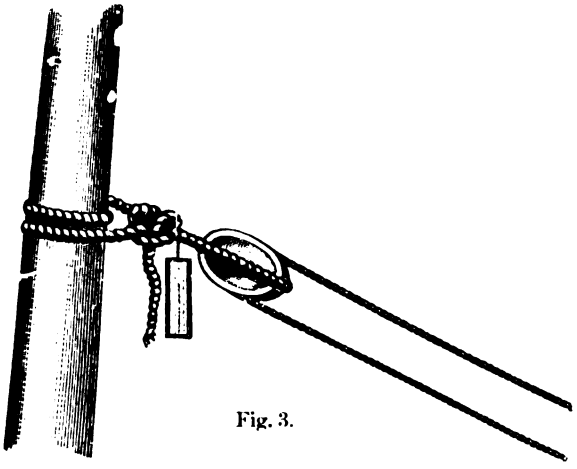

Fig. 3.

where but one or two men can work to advantage, cut the shot line and run it through some available block, such as the throat or peak halyards block, or any block which will afford a clear lead, or even between the ratlines, that as many as possible may assist in hauling.

Attached to the tail block will be a tally board, with the following directions in English on one side and French on the other:

"Make the tail of the block fast to the lower mast, well up. If the masts are gone, then to the best place you can find. Cast off shot line, see that the rope in the block runs free, and show signal to the shore."

The above instructions being complied with, the result will be as shown in fig. 3 above.

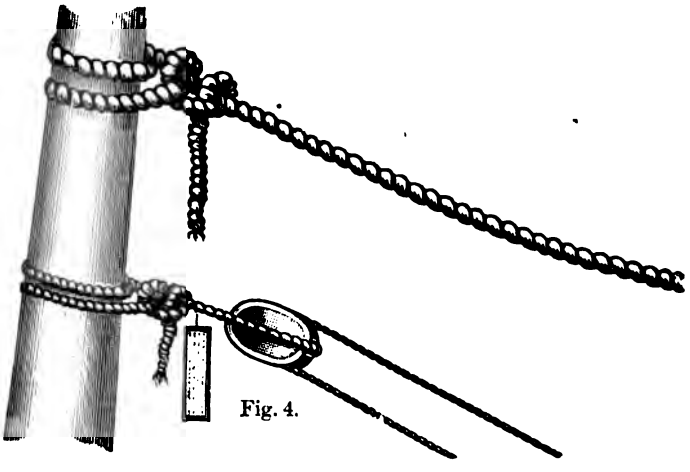

Fig. 4.

As soon as your signal is seen, a 3-inch hawser will be bent on to the whip and hauled off to your ship by the life-saving crew.

If circumstances will admit, you can assist the life-saving crew by manning that part of the whip to which the hawser is bent and hauling with them.

When the end of the hawser is got on board, a tally board will be found attached, bearing the following directions in English on one side and French on the other:

"Make this hawser fast about 2 feet above the tail block; see all clear and that the rope in the block runs free, and show signal to the shore."

These instructions being obeyed, the result will be as shown in fig. 4.

Take particular care that there are no turns of the whip line around the hawser. To prevent this, take the end of the hawser UP BETWEEN *the parts of the whip before making it fast.*

When the hawser is made fast, the whip cast off from the hawser, and your signal seen by the life-saving crew, they will haul the hawser taut and by means of the whip will haul off to your ship a breeches buoy suspended from a traveler block, or a life car from rings, running on the hawser.

Fig. 5, below, represents the apparatus rigged, with the breeches buoy hauled off to the ship.

If the breeches buoy be sent, let one man immediately get into it, thrusting his legs through the breeches. If the life car, remove the hatch, place as many persons into it as it will hold (four to six), and secure the hatch on the outside by the hatch bar and hook, signal as before, and the buoy or car will be hauled ashore. This will be repeated until all are landed. On the last trip of the life car the hatch must be secured by the inside hatch bar.

In many instances two men can be landed in the breeches buoy at the same time by each putting a leg through a leg of the breeches and holding on to the lifts of the buoy.

Children, when brought ashore by the buoy, should be in the arms of older persons or securely lashed to the buoy. Women and children should be landed first.

In signaling as directed in the foregoing instructions, if in the daytime, let one man separate himself from the rest and swing his hat, a handkerchief, or his hand; if at night, the showing of a light and concealing it once or twice, will be understood; and like signals will be made from the shore.

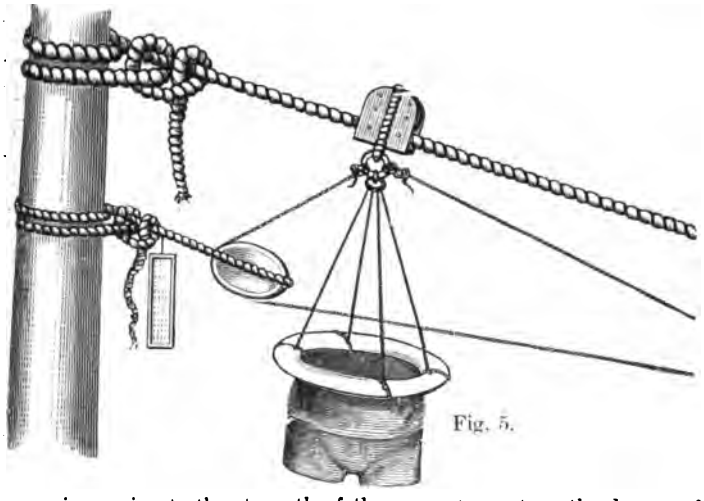

Fig. 5.

Circumstances may arise, owing to the strength of the current or set, or the danger of the wreck breaking up immediately, when it would be impossible to send off the hawser. In such a case a breeches buoy or life car will be hauled off instead by the whip, or sent off to you by the shot line, and you will be hauled ashore through the surf.

If your vessel is stranded during the night and discovered by the patrolman, which you will know by his burning a brilliant red light, keep a bright lookout for signs of the arrival of the life-saving crew abreast of your vessel.

From one to four hours may intervene between the burning of the light and their arrival, as the patrolman will have to return to his station, perhaps 3 or 4 miles distant, and the life-saving crew draw the apparatus or surfboat through the sand or over bad roads to where your vessel is stranded.

Lights on the beach will indicate their arrival, and the sound of cannon firing from the shore may be taken as evidence that a line has been fired across your vessel. Therefore, upon hearing the cannon, make strict search aloft, fore and aft, for the shot line, for it is almost certain to be there. Though the movements of the life-saving crew may not be perceptible to you, owing to the darkness, your ship will be a good mark for the men experienced in the use of the wreck gun, and the first shot seldom fails.

SIGNALS.

The following signals, approved by the International Marine Conference convened at Washington in October, 1889, have been adopted by the Life-Saving Service, and will be used and recognized by the officers and employees as occasion may require:

"Upon the discovery of a wreck by night, the life-saving force will burn a red pyrotechnic light or a red rocket to signify—'You are seen; assistance will be given as soon as possible.'

"A red flag waved on shore by day, or a red light, red rocket, or red Roman candle displayed by night, will signify—'Haul away.'

"A white flag waved on shore by day, or a white light slowly swung back and forth, or a white rocket, or white Roman candle fired at night, will signify—'Slack away.'

"Two flags, a white and a red, waved at the same time on shore by day, or two lights, a white and a red, slowly swung at the same time, or a blue pyrotechnic light burned by night, will signify—'Do not attempt to land in your own boats. It is impossible.'

"A man on shore beckoning by day, or two torches burning near together by night, will signify—'This is the best place to land.'

"Any of these signals may be answered from the vessel as follows: In the daytime, by waving a flag, a handkerchief, a hat, or even the hand; at night, by firing a rocket, a blue light, or a gun, or by showing a light over the ship's gunwale for a short time, and then concealing it."

RECAPITULATION.

Remain by the wreck until assistance arrives from the shore, unless your vessel shows signs of immediately breaking up.

If not discovered immediately by the patrol, burn rockets, flare-up or other lights; or, if the weather be foggy, fire guns.

Take particular care that there are no turns of the whip line around the hawser before making the hawser fast.

Send the women, children, helpless persons, and passengers ashore first.

Make yourself thoroughly familiar with these instructions, and remember that on your coolness and strict attention to them will greatly depend the chances of success in bringing you and your people safely to land.

INSTRUCTIONS FOR SAVING DROWNING PERSONS BY SWIMMING TO THEIR RELIEF.*

1. When you approach a person drowning in the water, assure him, with a loud and firm voice, that he is safe.

2. Before jumping in to save him, divest yourself as far and as quickly as possible of all clothing; tear them off, if necessary; but if there is not time, loose at all events the foot of your drawers, if they are tied, as, if you do not do so, they fill with water and drag you.

3. On swimming to a person in the sea, if he be struggling, do not seize him then, but keep off for a few seconds till he gets quiet, for it is sheer madness to take hold of a man when he is struggling in the water, and if you do you run a great risk.

4. Then get close to him and take fast hold of the hair of his head, turn him as quickly as possible onto his back, give him a sudden pull, and this will cause him to float; then throw yourself on your back also and swim for the shore, both hands having hold of his hair, you on your back and he also on his, and, of course, his back to your stomach. In this way you will get sooner and safer ashore than by any other means, and you can easily thus swim with two or three persons; the writer has even, as an experiment, done it with four, and gone with them 40 or 50 yards in the sea. One great advantage of this method is that it enables you to keep your head up, and also to hold the person's head up you are trying to save. It is of primary importance that you take fast hold of the hair and throw both the person and yourself on your backs. After many experiments, it is usually found preferable to all other methods. You can in this manner float nearly as long as you please, or until a boat or other help can be obtained.

5. It is believed there is no such thing as a death *grasp;* at least it is very unusual to witness it. As soon as a drowning man begins to get feeble and to lose consciousness he gradually slackens his hold until he quits it altogether. No apprehension need, therefore, be felt on that head when attempting to rescue a drowning person.

6. After a person has sunk to the bottom, if the water be smooth, the exact position where the body lies may be known by the air bubbles, which will occasionally rise to the surface, allowance being of course made for the motion of the water, if in a tideway or stream, which will have carried the bubbles out of a perpendicular course in rising to the surface. A body may be often regained from the bottom, before too late for recovery, by diving for it in the direction indicated by these bubbles.

7. On rescuing a person by diving to the bottom, the hair of the head should be seized by one hand only, and the other used, in conjunction with the feet, in raising yourself and the drowning person to the surface.

8. If in the sea, it may sometimes be a great error to try to get to land. If there be a strong "outsetting" tide, and you are swimming either by yourself, or having hold of a person who can not swim, then get on your back and float till help comes. Many a man exhausts himself by stemming the billows for the shore on a back-going tide, and sinks in the effort, when, if he had floated, a boat or other aid might have been obtained.

9. These instructions apply alike to all circumstances, whether as regards the roughest sea or smooth water.

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*From the Regulations of the United States Life-Saving Service, published originally by the Royal National Life-Boat Institution of Great Britain.

DIRECTIONS FOR RESTORING THE APPARENTLY DROWNED.*

RULE I. *Arouse the patient.*—Unless in danger of freezing, do not move the patient, but instantly expose the face to a current of fresh air, wipe dry the mouth and nostrils, rip the clothing so as to expose the chest and waist, and give two or three quick smarting slaps on the stomach and chest with the open hand. If, however, there is reason to believe that considerable time has elapsed since the patient became insensible, do not lose further time by practicing Rule I, but proceed immediately to Rule II. After loosening clothing, etc., if the patient does not revive, then proceed thus:

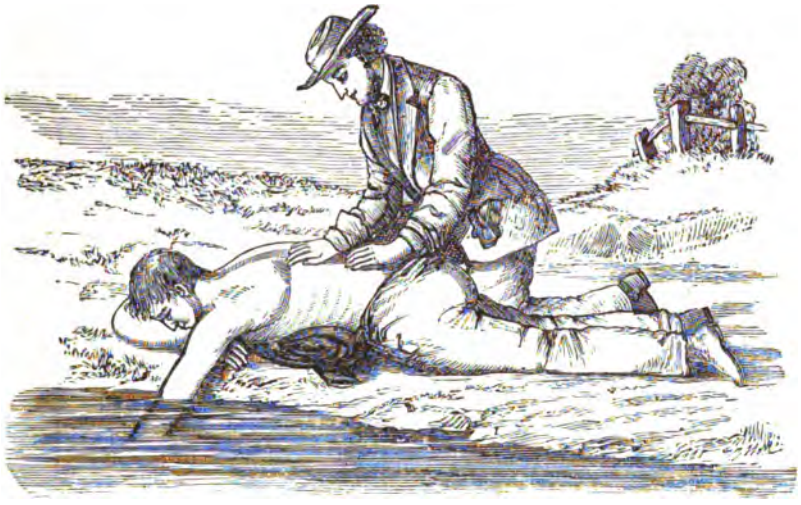

FIG. 6. Showing the first step taken by which the chest is emptied of air, and the ejection of any fluids swallowed is assisted.

RULE II. *To expel water, etc., from the stomach and chest* (see Fig. 6).—If the jaws are clinched, separate them, and keep the mouth open by placing between the teeth a cork or small bit of wood; turn the patient on the face, a large bundle of tightly rolled clothing being placed beneath the stomach, and press heavily over it for half a minute, or so long as fluids flow freely from the mouth.

RULE III. *To produce breathing* (see Fig. 7).—Clear the mouth and throat of mucus by introducing into the throat the corner of a handkerchief wrapped closely around the forefinger; turn the patient on the back,

FIG. 7. Showing the position and action of the operator in alternately producing artificial expiration and inspiration of air.

the roll of clothing being so placed beneath it as to raise the pit of the stomach above the level of any other part of the body. If there be another person present, let him, with a piece of dry cloth, hold the tip of the tongue out of one corner of the mouth (this prevents the tongue from falling back and choking the entrance to the windpipe), and with the other hand grasp both wrists and keep the arms forcibly stretched back above the head, thereby increasing the prominence of the ribs, which tends to enlarge the chest. The two last-named positions are not, however, absolutely essential to success. Kneel beside or astride the patient's hips, and

*From the Regulations of the United States Life-Saving Service.

with the balls* of the thumbs resting on either side of the pit of the stomach, let the fingers fall into the grooves between the short ribs, so as to afford the best grasp of the waist. Now, using your knees as a pivot, throw all your weight forward on your hands, and at the same time squeeze the waist between them, as if you wished to force everything in the chest upward out of the mouth; deepen the pressure while you can count slowly one, two, three; then suddenly let go with a final push, which springs you back to your first kneeling position. Remain erect on your knees while you can count one, two, three; then repeat the same motions as before at a rate gradually increased from four or five to fifteen times in a minute, and continue thus this bellows movement with the same regularity that is observable in the natural motions of breathing which you are imitating. If natural breathing be not restored, after a trial of the bellows movement for the space of three or four minutes, then turn the patient a second time on the stomach, as directed in Rule II, rolling the body in the opposite direction from that in which it was first turned, for the purpose of freeing the air passages from any remaining water. Continue the artificial respiration from one to four hours, or until the patient breathes, according to Rule III; and for awhile, after the appearance of returning life, carefully aid the first short gasps until deepened into full breaths. Continue the drying and rubbing, which should have been unceasingly practiced from the beginning by the assistants, taking care not to interfere with the means employed to produce breathing. Thus the limbs of the patient should be rubbed, always in an upward direction toward the body, with firm-grasping pressure and energy, using the bare hands, dry flannels, or handkerchiefs, and continuing the friction under the blankets or over the dry clothing. The warmth of the body can also be promoted by the application of hot flannels to the stomach and armpits, bottles or bladders of hot water, heated bricks, etc., to the limbs and soles of the feet.

Rule IV. After treatment.—*Externally:* As soon as breathing is established let the patient be stripped of all wet clothing, wrapped in blankets only, put to bed comfortably warm, but with a free circulation of fresh air, and left to perfect rest. *Internally:* Give whisky or brandy and hot water in doses of a teaspoonful to a tablespoonful, according to the weight of the patient, or other stimulant at hand, every ten or fifteen minutes for the first hour, and as often thereafter as may seem expedient. *Later manifestations:* After reaction is fully established, there is great danger of congestion of the lungs, and if perfect rest is not maintained for at least forty-eight hours, it sometimes occurs that the patient is seized with great difficulty of breathing, and death is liable to follow unless immediate relief is afforded. In such cases apply a large mustard plaster over the breast. If the patient gasps for breath before the mustard takes effect, assist the breathing by carefully repeating the artificial respiration.

Note.—Dr. Labordette, the supervising surgeon of the Hospital of Lisieux, in France, appears to have established that the clinching of the jaws and the semicontraction of the fingers, which have hitherto been considered signs of death, are, in fact, evidences of remaining vitality. After numerous experiments with apparently drowned persons, and also with animals, he concludes that these are only signs accompanying the first stage of suffocation by drowning, the jaws and hands becoming relaxed when death ensues.† This being so, the mere clinching of the jaws and semicontraction of the hands must not be considered as reasons for the discontinuance of efforts to save life, but should serve as a stimulant to vigorous and prolonged efforts to quicken vitality. Persons engaged in the task of resuscitation are, therefore, earnestly desired to take hope and encouragement for the life of the sufferer from the signs above referred to, and to continue their endeavors accordingly. In a number of cases Dr. Labordette restored to life persons whose jaws were so firmly clinched that, to aid respiration, their teeth had to be forced apart with iron instruments.

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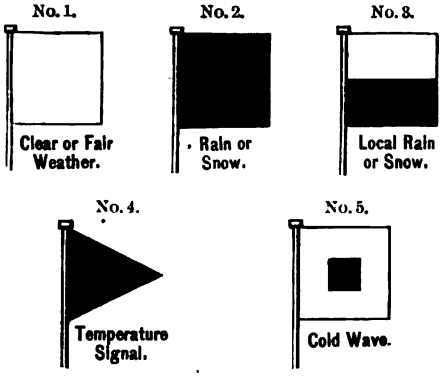
* It is wrong to suppose, as some do, that the inner end of the thumb is the ball. The ball is the fleshy base of the thumb, near the wrist.

† The muscular rigidity of death (rigor mortis) occurs later, after the temporary relaxation here referred to.

STORM, WIND-DIRECTION, AND INFORMATION SIGNALS OF THE UNITED STATES WEATHER BUREAU.

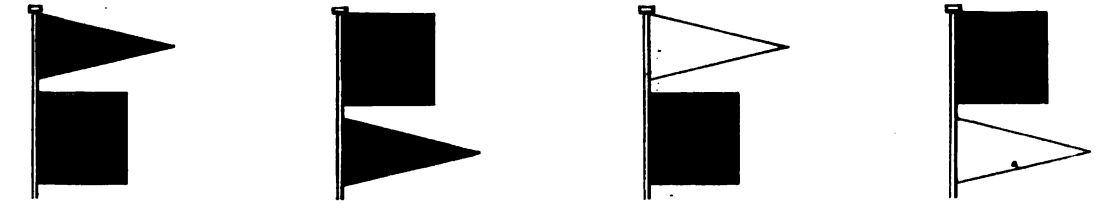
WEATHER AND TEMPERATURE SIGNALS, AND INTERPRETATION OF DISPLAYS.



No. 1, alone, indicates fair weather, stationary temperature,
No. 2, alone, indicates rain or snow, stationary temperature.
No. 3, alone, indicates local rain or snow, stationary temperature.
No. 1, with No. 4 above it, indicates fair weather, warmer.
No. 1, with No. 4 below it, indicates fair weather, colder.
No· 2, with No. 4 above it, indicates rain or snow, warmer.
No. 2, with No. 4 below it, indicates rain or snow, colder.
No. 3, with No. 4 above it, indicates local rain or snow, warmer.
No. 3, with No. 4 below it, indicates local rain or snow, colder.
No. 1, with No. 5, indicates fair weather, cold wave.
No. 2, with No. 5, indicates wet weather, cold wave.

WIND SIGNALS FOR THE BENEFIT OF MARINE INTERESTS.

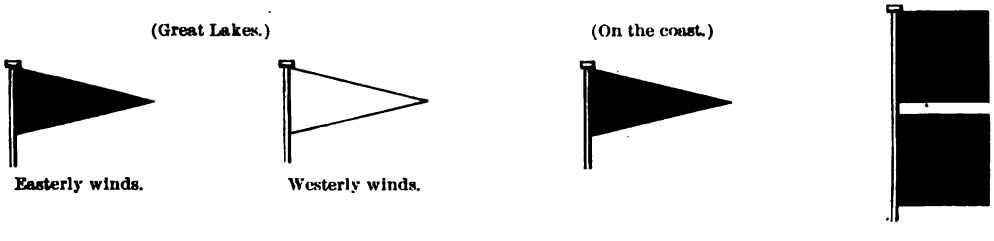
STORM SIGNALS.



Northeasterly winds. Southeasterly winds. Northwesterly winds. Southwesterly winds.

INFORMATION SIGNALS. HURRICANE SIGNAL.

(Great Lakes.) (On the coast.)



Easterly winds. Westerly winds.

EXPLANATION.

Storm signal.—A red flag with a black center indicates that a storm of marked violence is expected.

The pennants displayed with the flags indicate the direction of the wind: Red, easterly (from northeast to south); white, westerly (from southwest to north). The pennant above the flag indicates that the wind is expected to blow from the northerly quadrants; below, from southerly quadrants.

By night a red light indicates easterly winds, and a white light above a red light westerly winds.

Information signal.—Red or white pennant displayed alone. When displayed at stations on the Great Lakes, indicates that winds are expected which may prove dangerous to tows and smaller classes of vessels, the red pennant indicating easterly, and the white pennant westerly, winds.

When displayed at stations on the Atlantic, Pacific, and Gulf coasts, indicates that the local observer has received information from the Central Office of a storm covering a limited area, dangerous only for vessels about to sail to certain points, and serves as a notification to shipmasters that information will be given them upon application to the local observer. Only the red pennant is displayed on the coasts.

Hurricane signal.—Two red flags with black centers, displayed one above the other, indicate the expected approach of tropical hurricanes, and also of those extremely severe and dangerous storms which occasionally move across the Lakes and north Atlantic coast.

No night information of hurricane signals is displayed.

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JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:20 3.5	11:54 0.1	18:00 2.8	23:47 0.2
N	S	2	6:07 3.7	12:42 —0.1	18:47 2.9	. . . . . .
○	S	3	0:32 0.1	6:52 3.9	13:25 —0.3	19:29 3.0
P	M	4	1:15 0.0	7:37 3.9	14:06 —0.4	20:12 3.1
	Tu	5	1:58 —0.1	8:22 3.9	14:48 —0.4	20:51 3.1
	W	6	2:43 0.0	9:07 3.8	15:32 —0.3	21:41 3.1
	Th	7	3:30 0.1	9:50 3.5	16:12 —0.1	22:28 3.0
E	F	8	4:22 0.2	10:45 3.2	17:05 0.1	23:18 2.9
☾	S	9	5:23 0.4	11:38 2.9	17:56 0.3	. . . . . .
	S	10	0:17 2.8	6:30 0.6	12:42 2.6	18:55 0.5
	M	11	1:22 2.8	7:50 0.7	14:00 2.4	20:02 0.6
	Tu	12	2:30 2.8	9:16 0.7	15:20 2.3	21:09 0.7
	W	13	3:37 2.9	10:33 0.6	16:32 2.3	22:12 0.6
	Th	14	4:34 3.0	11:34 0.5	17:30 2.4	23:06 0.5
S	F	15	5:24 3.2	12:20 0.4	18:15 2.4	23:58 0.4
	S	16	6:10 3.3	12:57 0.3	18:55 2.5	. . . . . .
●	S	17	0:34 0.3	6:48 3.4	13:29 0.2	19:30 2.6
	M	18	1:12 0.3	7:25 3.4	13:58 0.2	20:00 2.7
A	Tu	19	1:42 0.4	7:57 3.4	14:24 0.1	20:28 2.7
	W	20	2:10 0.4	8:29 3.3	14:52 0.1	20:58 2.8
	Th	21	2:39 0.4	9:00 3.2	15:21 0.1	21:25 2.8
E	F	22	3:12 0.4	9:32 3.1	15:52 0.2	22:01 2.8
	S	23	3:50 0.5	10:05 2.9	16:26 0.2	22:44 2.8
	S	24	4:33 0.5	10:45 2.7	17:02 0.4	23:33 2.8
☽	M	25	5:29 0.6	11:38 2.5	17:48 0.5	. . . . . .
	Tu	26	0:31 2.7	6:39 0.8	12:40 2.3	18:47 0.7
	W	27	1:40 2.7	8:06 0.8	14:05 2.2	20:02 0.8
	Th	28	2:52 2.8	9:30 0.7	15:35 2.2	21:21 0.7
N	F	29	3:58 3.1	10:42 0.5	16:42 2.4	22:30 0.5
	S	30	4:57 3.4	11:40 0.2	17:44 2.6	23:30 0.2
	S	31	5:50 3.6	12:29 0.0	18:32 2.8	. . . . . .

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○ P	M	1	0:19 0.0	6:39 3.8	13:12 —0.3	19:15 3.1
	Tu	2	1:06 —0.1	7:24 3.9	13:52 —0.4	19:57 3.2
	W	3	1:52 —0.2	8:08 3.9	14:32 —0.4	20:40 3.3
E	Th	4	2:35 —0.2	8:52 3.8	15:13 —0.4	21:21 3.3
	F	5	3:20 —0.1	9:37 3.6	15:52 —0.2	22:02 3.3
	S	6	4:07 0.0	10:20 3.2	16:35 0.0	22:50 3.2
	S	7	5:00 0.2	11:10 2.9	17:18 0.3	23:42 3.0
☾	M	8	5:58 0.5	12:06 2.6	18:08 0.5	. . . . . .
	Tu	9	0:42 2.8	7:13 0.7	13:18 2.2	19:12 0.7
	W	10	1:51 2.7	8:43 0.9	14:42 2.1	20:27 0.8
S	Th	11	3:03 2.7	10:15 0.9	16:07 2.1	21:40 0.8
	F	12	4:09 2.8	11:20 0.7	17:14 2.2	22:46 0.6
	S	13	5:05 3.0	12:06 0.6	18:03 2.4	23:39 0.5
	S	14	5:52 3.1	12:42 0.4	18:40 2.5	. . . . . .
A	M	15	0:22 0.4	6:32 3.2	13:12 0.3	19:10 2.7
●	Tu	16	0:57 0.3	7:07 3.3	13:37 0.2	19:39 2.8
	W	17	1:28 0.3	7:40 3.3	14:00 0.1	20:06 2.9
	Th	18	1:56 0.3	8:10 3.3	14:25 0.0	20:32 3.0
E	F	19	2:25 0.2	8:38 3.2	14:52 0.0	21:00 3.1
	S	20	2:55 0.2	9:08 3.1	15:19 0.0	21:32 3.1
	S	21	3:30 0.2	9:40 3.0	15:50 0.1	22:10 3.1
	M	22	4:11 0.3	10:18 2.8	16:25 0.3	22:55 3.0
	Tu	23	5:00 0.4	11:02 2.6	17:06 0.5	23:50 2.8
☽	W	24	6:03 0.6	11:58 2.4	17:58 0.6	. . . . . .
	Th	25	1:00 2.8	7:27 0.8	13:21 2.1	19:15 0.8
N	F	26	2:18 2.8	9:00 0.7	15:17 2.1	20:51 0.8
	S	27	3:33 3.0	10:22 0.6	16:27 2.3	22:14 0.5
	S	28	4:39 3.2	11:23 0.3	17:26 2.6	23:17 0.2
	M	29	5:35 3.5	12:12 0.0	18:15 2.9	. . . . . .

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	0:09 —0.1	6:25 3.7	12:54 —0.2	18:58 3.2
	W	2	0:55 —0.3	7:10 3.8	13:35 —0.4	19:38 3.4
E	Th	3	1:40 —0.4	7:54 3.8	14:10 —0.4	20:18 3.5
	F	4	2:20 —0.4	8:35 3.7	14:48 —0.4	20:55 3.5
	S	5	3:03 —0.3	9:17 3.5	15:25 —0.2	21:35 3.5
	S	6	3:48 —0.1	9:57 3.2	16:00 0.0	22:20 3.3
	M	7	4:35 0.2	10:40 2.8	16:40 0.3	23:07 3.1
☾	Tu	8	5:27 0.6	11:28 2.5	17:24 0.6	. . . . . .
S	W	9	0:02 2.9	6:32 0.8	12:32 2.2	18:21 0.8
	Th	10	1:09 2.7	7:59 1.0	14:02 2.0	19:42 1.0
	F	11	2:25 2.6	9:42 1.0	15:36 2.0	21:14 0.9
	S	12	3:40 2.6	10:54 0.9	16:50 2.1	22:26 0.8
	S	13	4:42 2.8	11:37 0.7	17:36 2.3	23:22 0.6
A	M	14	5:32 2.9	12:12 0.5	18:12 2.6	. . . . . .
	Tu	15	0:04 0.4	6:12 3.1	12:41 0.3	18:43 2.8
	W	16	0:40 0.3	6:47 3.2	13:07 0.1	19:12 2.9
● E	Th	17	1:10 0.2	7:17 3.2	13:30 0.0	19:38 3.1
	F	18	1:37 0.1	7:46 3.3	13:55 0.0	20:03 3.2
	S	19	2:07 0.0	8:15 3.2	14:21 0.0	20:32 3.3
	S	20	2:38 0.0	8:45 3.2	14:47 0.0	21:04 3.3
	M	21	3:15 0.0	9:17 3.0	15:17 0.1	21:42 3.3
	Tu	22	3:54 0.1	9:55 2.9	15:52 0.2	22:21 3.1
	W	23	4:42 0.3	10:37 2.6	16:33 0.4	23:22 3.0
N ☽	Th	24	5:41 0.6	11:34 2.4	17:26 0.7	. . . . . .
	F	25	0:28 2.8	7:00 0.7	12:57 2.2	18:45 0.9
	S	26	1:50 2.8	8:33 0.7	14:47 2.2	20:32 0.8
	S	27	3:10 2.9	9:52 0.6	16:07 2.4	21:59 0.5
	M	28	4:22 3.1	11:00 0.3	17:04 2.7	23:02 0.2
P	Tu	29	5:20 3.3	11:48 0.0	17:52 3.1	23:56 —0.1
E	W	30	6:10 3.5	12:31 —0.2	18:35 3.4	. . . . . .
○	Th	31	0:43 —0.3	6:56 3.6	13:09 —0.3	19:15 3.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	1:25	7:37	13:44	19:52
			—0.4	3.7	—0.3	3.7
	S	2	2:06	8:17	14:18	20:30
			—0.5	3.6	—0.3	3.7
	S	3	2:45	8:57	14:53	21:08
			—0.3	3.4	—0.1	3.6
	M	4	3:27	9:34	15:26	21:49
			—0.1	3.1	0.1	3.4
	Tu	5	4:10	10:12	16:00	22:35
			0.1	2.8	0.4	3.1
S	W	6	4:57	10:57	16:42	23:27
			0.4	2.5	0.6	2.9
☾	Th	7	5:54	11:53	17:40	. . .
			0.7	2.2	0.9	. . .
	F	8	0:27	7:08	13:18	18:57
			2.6	1.0	2.0	1.1
	S	9	1:43	8:44	14:54	20:40
			2.5	1.0	2.0	1.1
A	S	10	3:02	9:53	16:19	22:00
			2.5	0.9	2.1	0.9
	M	11	4:10	10:49	16:58	22:57
			2.6	0.7	2.6	0.7
	Tu	12	5:02	11:27	17:35	23:40
			2.7	0.5	2.7	0.5
E	W	13	5:45	12:02	18:08	. . .
			2.9	0.4	2.9	. . .
	Th	14	0:16	6:21	12:30	18:37
			0.8	3.0	0.2	3.1
●	F	15	0:47	6:54	12:57	19:06
			0.1	3.1	0.1	3.3
	S	16	1:17	7:25	13:24	19:35
			0.0	3.2	0.0	3.4
	S	17	1:49	7:57	13:51	20:08
			—0.1	3.2	0.0	3.5
	M	18	2:22	8:27	14:20	20:42
			—0.2	3.1	0.0	3.5
	Tu	19	3:00	9:02	14:51	21:21
			—0.1	3.0	0.1	3.4
N	W	20	3:42	9:39	15:28	22:07
			0.0	2.8	0.3	3.3
	Th	21	4:30	10:25	16:13	23:00
			0.2	2.6	0.5	3.1
	F	22	5:28	11:25	17:12	. . .
			0.4	2.4	0.7	. . .
☽	S	23	0:06	6:40	12:45	18:33
			2.9	0.7	2.2	0.9
	S	24	1:25	8:08	14:23	20:20
			2.7	0.7	2.3	0.8
	M	25	2:48	9:28	15:42	21:44
			2.8	0.6	2.5	0.6
P	Tu	26	4:02	10:30	16:39	22:49
			2.9	0.5	2.8	0.2
E	W	27	5:04	11:22	17:27	23:42
			3.1	0.2	3.2	0.0
	Th	28	5:54	12:02	18:10	. . .
			3.3	0.0	3.5	. . .
○	F	29	0:27	6:38	12:42	18:50
			—0.3	3.3	—0.2	3.7
	S	30	1:10	7:18	13:17	19:27
			—0.4	3.3	—0.2	3.7

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	MAY.					
	S	1	1:50	7:57	13:51	20:05
			—0.4	3.2	—0.1	3.7
	M	2	2:29	8:34	14:24	20:43
			—0.3	3.1	0.0	3.6
S	Tu	3	3:08	9:11	14:57	21:23
			—0.1	2.9	0.2	3.4
	W	4	3:47	9:48	15:30	22:05
			0.1	2.7	0.4	3.2
	Th	5	4:30	10:30	16:18	22:52
			0.4	2.4	0.7	2.9
	F	6	5:18	11:20	16:56	23:45
			0.6	2.2	0.9	2.6
☾	S	7	6:17	12:25	18:07	. . .
			0.8	2.1	1.1	. . .
A	S	8	0:50	7:30	13:53	19:50
			2.4	0.9	2.1	1.1
	M	9	2:07	8:44	15:10	21:18
			2.4	0.9	2.2	1.0
	Tu	10	3:22	9:47	16:06	22:10
			2.4	0.8	2.4	0.8
E	W	11	4:22	10:35	16:49	23:17
			2.5	0.6	2.7	0.6
	Th	12	5:10	11:15	17:27	23:47
			2.7	0.4	3.0	0.3
	F	13	5:50	11:51	18:02	. . .
			2.8	0.3	3.2	. . .
	S	14	0:22	6:26	12:23	18:36
			0.1	2.9	0.2	3.4
●	S	15	0:57	7:02	12:54	19:11
			—0.1	3.0	0.1	3.6
	M	16	1:33	7:39	13:26	19:47
			—0.2	3.0	0.1	3.7
	Tu	17	2:10	8:14	14:00	20:25
			—0.2	3.0	0.1	3.7
N	W	18	2:50	8:52	14:35	21:07
			—0.2	2.9	0.2	3.6
	Th	19	3:35	9:32	15:15	21:53
			—0.1	2.8	0.3	3.4
	F	20	4:21	10:20	16:04	22:48
			0.1	2.7	0.6	3.2
	S	21	5:18	11:21	17:07	23:50
			0.3	2.5	0.6	2.9
☽	S	22	6:21	12:32	18:28	. . .
P			0.6	2.4	0.8	. . .
	M	23	1:02	7:35	13:54	20:02
			2.7	0.6	2.5	0.7
E	Tu	24	2:22	8:48	15:07	21:25
			2.7	0.6	2.7	0.6
	W	25	3:39	9:52	16:07	22:31
			2.7	0.6	2.9	0.3
	Th	26	4:43	10:47	17:00•	23:26
			2.8	0.3	3.2	0.1
	F	27	5:36	11:35	17:45	. . .
			2.9	0.1	3.4	. . .
	S	28	0:14	6:22	12:15	18:27
			—0.1	3.0	0.0	3.6
○	S	29	0:59	7:03	12:52	19:05
			—0.2	3.0	0.0	3.7
	M	30	1:39	7:42	13:28	19:45
			—0.2	2.9	0.1	3.7
S	Tu	31	2:15	8:17	14:02	20:22•
			—0.1	2.8	0.2	3.6

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	JUNE.					
	W	1	2:52	8:52	14:35	21:01
			0.0	2.7	0.3	3.4
	Th	2	3:27	9:30	15:07	21:39
			0.1	2.6	0.6	3.2
	F	3	4:04	10:06	15:45	22:19
			0.3	2.5	0.7	2.9
	S	4	4:46	10:50	16:30	23:03
			0.6	2.4	0.8	2.7
A	S	5	5:31	11:42	17:27	23:56
			0.6	2.3	1.0	2.5
☾	M	6	6:25	12:50	18:43	. . .
			0.7	2.3	1.1	. . .
E	Tu	7	1:01	7:26	14:00	20:12
			2.3	0.8	2.4	1.0
	W	8	2:15	8:32	15:03	21:27
			2.3	0.8	2.5	0.9
	Th	9	3:29	9:32	15:58	22:25
			2.3	0.7	2.7	0.6
	F	10	4:28	10:25	16:45	23:15
			2.5	0.5	3.0	0.4
	S	11	5:18	11:10	17:27	23:58
			2.6	0.4	3.3	0.2
	S	12	6:02	11:51	18:10	. . .
			2.7	0.3	3.5	. . .
●	M	13	0:40	6:43	12:30	18:50
			—0.1	2.9	0.1	3.7
N	Tu	14	1:19	7:23	13:08	19:32
			—0.2	2.9	0.1	3.8
	W	15	2:00	8:04	13:47	20:13
			—0.3	3.0	0.1	3.8
	Th	16	2:42	8:42	14:27	20:57
			—0.3	3.0	0.1	3.7
P	F	17	3:24	9:28	15:11	21:42
			—0.2	2.9	0.2	3.5
	S	18	4:12	10:16	16:04	22:33
			—0.1	2.8	0.3	3.3
	S	19	5:00	11:09	17:03	23:31
			0.1	2.8	0.5	3.0
☽	M	20	5:55	12:11	18:15	. . .
E			0.3	2.7	0.6	. . .
	Tu	21	0:35	6:57	13:19	19:36
			2.7	0.5	2.7	0.6
	W	22	1:51	8:03	14:29	21:00
			2.6	0.6	2.8	0.6
	Th	23	3:11	9:11	15:33	22:14
			2.5	0.5	2.9	0.5
	F	24	4:20	10:12	16:32	23:16
			2.5	0.4	3.1	0.3
	S	25	5:19	11:10	17:22	. . .
			2.6	0.3	3.3	. . .
	S	26	0:07	6:08	11:52	18:07
			0.2	2.6	0.2	3.5
S	M	27	0:52	6:52	12:35	18:49
○			0.1	2.7	0.2	3.6
	Tu	28	1:28	7:28	13:12	19:27
			0.0	2.7	0.2	3.6
	W	29	2:03	8:04	13:46	20:05
			0.0	2.7	0.2	3.5
	Th	30	2:35	8:37	14:20	20:40
			0.1	2.7	0.3	3.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case substract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:06 0.1	9:10 2.7	14:50 0.4	21:16 3.2
	S	2	3:38 0.2	9:42 2.6	15:24 0.5	21:50 3.0
A	S	3	4:12 0.3	10:20 2.6	16:04 0.6	22:21 2.8
E	M	4	4:47 0.4	11:02 2.6	16:49 0.7	23:05 2.6
☾	Tu	5	5:27 0.5	11:55 2.6	17:47 0.8	23:55 2.4
	W	6	6:15 0.6	12:55 2.6	19:00 0.9	. . . . . .
	Th	7	1:01 2.3	7:15 0.8	14:00 2.6	20:22 0.9
	F	8	2:22 2.2	8:25 0.8	15:05 2.7	21:39 0.8
	S	9	3:42 2.3	9:32 0.7	16:05 3.0	22:44 0.5
	S	10	4:44 2.4	10:33 0.5	16:58 3.3	23:37 0.3
N	M	11	5:40 2.6	11:24 0.3	17:47 3.5	. . . . . .
	Tu	12	0:22 0.0	6:26 2.8	12:12 0.2	18:34 3.7
●	W	13	1:06 —0.2	7:08 2.9	12:56 0.0	19:17 3.9
	Th	14	1:47 —0.3	7:52 3.0	13:39 —0.2	20:01 3.9
P	F	15	2:28 —0.4	8:33 3.1	14:23 —0.1	20:45 3.8
	S	16	3:10 —0.3	9:16 3.1	15:08 0.0	21:32 3.6
E	S	17	3:53 —0.2	10:00 3.1	15:57 0.1	22:18 3.4
	M	18	4:35 0.0	10:49 3.0	16:52 0.2	23:09 3.1
☽	Tu	19	5:25 0.2	11:44 3.0	17:54 0.4	. . . . . .
	W	20	0:05 2.8	6:17 0.4	12:44 2.9	19:07 0.6
	Th	21	1:15 2.5	7:20 0.6	13:53 2.8	20:33 0.7
	F	22	2:38 2.3	8:31 0.7	15:02 2.9	22:00 0.7
	S	23	3:56 2.3	9:40 0.6	16:07 3.0	23:07 0.6
S	S	24	5:04 2.3	10:42 0.5	17:02 3.2	24:00 0.4
	M	25	5:57 2.4	11:35 0.4	17:51 3.3	. . . . .
	Tu	26	0:43 0.3	6:40 2.5	12:21 0.3	18:35 3.4
○	W	27	1:18 0.2	7:16 2.6	12:59 0.2	19:13 3.4
	Th	28	1:50 0.1	7:48 2.7	13:35 0.2	19:48 3.4
	F	29	2:17 0.1	8:20 2.8	14:06 0.3	20:21 3.3
A	S	30	2:42 0.1	8:48 2.8	14:35 0.3	20:52 3.2
	S	31	3:10 0.1	9:16 2.8	15:05 0.4	21:21 3.1

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	3:38 0.1	9:48 2.9	15:38 0.4	21:52 2.9
	Tu	2	4:09 0.2	10:25 2.9	16:17 0.6	22:27 2.8
	W	3	4:42 0.5	11:10 2.8	17:06 0.6	23:10 2.6
☾	Th	4	5:22 0.5	12:02 2.7	18:06 0.7	. . . . . .
	F	5	0:04 2.4	6:12 0.7	13:10 2.7	19:25 0.8
	S	6	1:18 2.2	7:24 0.8	14:20 2.7	20:57 0.8
	S	7	2:57 2.1	8:44 0.8	15:32 2.9	22:15 0.6
N	M	8	4:16 2.3	10:01 0.6	16:33 3.2	23:15 0.4
	Tu	9	5:20 2.5	11:05 0.4	17:28 3.5	. . . . . .
	W	10	0:07 0.1	6:10 2.8	11:58 0.1	18:18 3.7
●	Th	11	0:52 —0.2	6:55 3.0	12:45 —0.1	19:04 3.9
P	F	12	1:32 —0.3	7:32 3.2	13:30 —0.2	19:47 3.9
	S	13	2:10 —0.4	8:17 3.3	14:14 —0.3	20:32 3.9
E	S	14	2:48 —0.4	8:58 3.4	14:57 —0.3	21:13 3.7
	M	15	3:28 —0.3	9:37 3.4	15:44 —0.1	21:57 3.4
	Tu	16	4:10 —0.1	10:23 3.3	16:35 0.1	22:44 3.1
	W	17	4:51 0.1	11:12 3.1	17:28 0.3	23:34 2.7
☽	Th	18	5:40 0.4	12:10 3.0	18:36 0.6	. . . . . .
	F	19	0:40 2.4	6:36 0.7	13:15 2.8	20:00 0.8
S	S	20	2:00 2.1	7:50 0.8	14:28 2.8	21:39 0.9
	S	21	3:33 2.1	9:12 0.8	15:42 2.8	22:55 0.7
	M	22	4:50 2.2	10:24 0.6	16:45 2.9	23:48 0.6
	Tu	23	5:43 2.4	11:20 0.5	17:36 3.1	. . . . . .
	W	24	0:27 0.4	6:25 2.5	12:08 0.3	18:20 3.2
○	Th	25	1:00 0.3	6:58 2.7	12:47 0.2	18:57 3.3
	F	26	1:28 0.1	7:28 2.8	13:21 0.2	19:30 3.3
A	S	27	1:50 0.1	7:57 2.9	13:50 0.2	20:00 3.3
E	S	28	2:13 0.0	8:22 3.0	14:17 0.2	20:26 3.2
	M	29	2:40 0.0	8:47 3.1	14:45 0.2	20:53 3.1
	Tu	30	3:03 0.0	9:10 3.1	15:16 0.2	21:24 3.0
	W	31	3:30 0.1	9:51 3.1	15:53 0.3	21:57 2.9

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	4:01 0.2	10:30 3.0	16:37 0.4	22:35 2.7
☾	F	2	4:38 0.4	11:22 2.9	17:32 0.5	23:23 2.4
	S	3	5:24 0.6	12:24 2.8	18:45 0.7	. . . . . .
N	S	4	0:33 2.2	6:28 0.9	13:42 2.7	20:20 0.8
	M	5	2:20 2.1	8:07 0.9	15:00 2.8	21:48 0.7
	Tu	6	3:53 2.2	9:40 0.7	16:10 3.1	22:54 0.4
	W	7	5:00 2.5	10:50 0.4	17:10 3.4	23:50 0.1
	Th	8	5:50 2.8	11:45 0.0	18:02 3.6	. . . . . .
P ●	F	9	0:32 —0.1	6:35 3.2	12:34 —0.2	18:49 3.8
E	S	10	1:11 —0.3	7:15 3.4	13:18 —0.4	19:32 3.8
	S	11	1:48 —0.4	7:55 3.6	14:00 —0.5	20:14 3.7
	M	12	2:25 —0.4	8:32 3.6	14:43 —0.4	20:55 3.6
	Tu	13	3:02 —0.3	9:12 3.6	15:27 —0.3	21:36 3.3
	W	14	3:38 —0.1	9:50 3.5	16:12 0.0	22:18 3.0
	Th	15	4:12 0.2	10:42 3.3	17:04 0.3	23:05 2.6
☽	F	16	5:02 0.5	11:37 3.0	18:03 0.6	. . . . . .
S	S	17	0:05 2.3	5:57 0.7	12:40 2.8	19:22 0.9
	S	18	1:27 2.0	7:12 0.9	13:55 2.6	21:04 1.0
	M	19	3:05 2.0	8:45 0.9	15:13 2.6	22:21 0.9
	Tu	20	4:18 2.1	10:04 0.8	16:22 2.7	23:18 0.7
	W	21	5:17 2.3	11:07 0.6	17:17 2.9	23:57 0.5
	Th	22	5:57 2.6	11:52 0.4	18:00 3.0	. . . . . .
A	F	23	0:27 0.3	6:30 2.8	12:30 0.3	18:37 3.1
○ E	S	24	0:55 0.2	6:59 3.0	13:02 0.2	19:09 3.2
	S	25	1:20 0.1	7:26 3.1	13:28 0.1	19:36 3.2
	M	26	1:42 0.1	7:50 3.2	13:57 0.0	20:03 3.2
	Tu	27	2:05 0.0	8:17 3.3	14:25 0.0	20:31 3.1
	W	28	2:30 0.0	8:47 3.3	14:56 0.0	21:00 3.0
	Th	29	2:57 0.1	9:21 3.3	15:34 0.1	21:32 2.9
	F	30	3:30 0.2	10:12 3.2	16:18 0.2	22:12 2.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	4:07	10:52	17:10	23:02			Tu	1	0:02	5:50	12:44	19:20			Th	1	1:07	7:12	13:36	20:01	
			0.4	3.0	0.4	2.5					2.3	0.8	2.8	0.7					2.5	0.7	2.7	0.6	
☾	S	2	4:52	11:52	18:19	. . .			W	2	1:32	7:28	14:06	20:42		E P	F	2	2:23	8:40	14:55	21:10	
			0.6	2.9	0.6	. . .					2.3	0.8	2.7	0.6					2.6	0.6	2.6	0.5	
	M	3	0:09	6:00	13:09	19:47			Th	3	2:57	9:05	15:25	21:52			S	3	3:30	9:55	16:07	22:11	
			2.2	0.8	2.7	0.7					2.5	0.6	2.8	0.5					2.8	0.4	2.7	0.4	
	Tu	4	1:55	7:46	14:32	21:16		E	F	4	4:05	10:17	16:32	22:48			S	4	4:27	10:57	17:17	23:03	
			2.1	0.9	2.8	0.7					2.8	0.4	3.0	0.3					3.1	0.2	2.8	0.2	
	W	5	3:28	9:22	15:48	22:27		P	S	5	4:57	11:14	17:27	23:35			M	5	5:17	11:50	17:57	23:50	
			2.3	0.7	2.9	0.4					3.1	0.1	3.1	0.0					3.4	0.0	2.9	0.1	
	Th	6	4:35	10:34	16:52	23:20			S	6	5:43	12:04	18:15	. . .		●	Tu	6	6:04	12:38	18:43	. . .	
			2.6	0.4	3.2	0.2					3.4	—0.2	3.3	. . .					3.6	—0.1	2.9	. . .	
	F	7	5:27	11:30	17:46	. . .		●	M	7	0:16	6:25	12:48	18:58			W	7	0:32	6:47	13:22	19:23	
			3.0	0.0	3.4	. . .					—0.1	3.7	—0.4	3.3					0.0	3.7	—0.2	2.9	
P E	S	8	0:05	6:10	12:20	18:33			Tu	8	0:55	7:06	13:32	19:38		S	Th	8	1:10	7:27	14:01	20:02	
			—0.1	3.3	—0.3	3.5					—0.2	3.8	—0.4	3.3					0.0	3.8	—0.2	2.9	
●	S	9	0:45	6:51	13:03	19:15			W	9	1:32	7:45	14:12	20:17			F	9	1:47	8:07	14:38	20:40	
			—0.3	3.6	—0.4	3.6					—0.2	3.8	—0.4	3.1					0.1	3.7	—0.1	2.8	
	M	10	1:22	7:30	13:45	19:57		S	Th	10	2:08	8:26	14:52	20:56			S	10	2:24	8:47	15:15	21:17	
			—0.3	3.7	—0.5	3.6					—0.1	3.8	—0.2	3.0					0.2	3.5	0.0	2.7	
	Tu	11	1:57	8:08	14:27	20:37			F	11	2:42	9:07	15:33	21:35			S	11	3:00	9:27	15:53	21:57	
			—0.3	3.8	—0.5	3.4					0.1	3.6	0.0	2.8					0.4	3.3	0.2	2.6	
	W	12	2:32	8:48	15:08	21:15			S	12	3:18	9:50	16:17	22:18			M	12	3:37	10:08	16:32	22:38	
			—0.2	3.7	—0.3	3.2					0.3	3.3	0.2	2.6					0.5	3.1	0.4	2.5	
	Th	13	3:08	9:30	15:52	21:55			S	13	4:00	10:37	17:04	23:07			Tu	13	4:23	10:52	17:15	23:27	
			0.0	3.6	0.0	2.9					0.5	3.0	0.5	2.4					0.7	2.8	0.5	2.4	
S	F	14	3:45	10:15	16:38	22:37		☽	M	14	4:46	11:27	17:58	. . .		☽ A	W	14	5:14	11:39	18:05	. . .	
			0.2	3.3	0.2	2.6					0.8	2.7	0.7	. . .					0.9	2.5	0.7	. . .	
	S	15	4:25	11:05	17:35	23:34			Tu	15	0:07	5:52	12:28	19:04		E	Th	15	0:25	6:22	12:37	19:00	
			0.5	3.0	0.6	2.3					2.2	1.0	2.5	0.8					2.4	1.0	2.3	0.8	
☽	S	16	5:17	12:05	18:40	. . .			W	16	1:25	7:22	13:43	20:15			F	16	1:33	7:42	13:41	20:01	
			0.8	2.7	0.8	. . .					2.2	1.1	2.4	0.9					2.4	1.0	2.2	0.8	
	M	17	0:50	6:33	13:15	20:06		A	Th	17	2:43	8:53	14:58	21:22			S	17	2:35	9:02	15:02	21:04	
			2.1	1.0	2.5	1.0					2.2	1.0	2.4	0.8					2.5	1.0	2.2	0.8	
	Tu	18	2:22	8:13	14:35	21:28		E	F	18	3:43	10:04	16:03	22:14			S	18	3:33	10:09	16:06	21:59	
			2.0	1.0	2.5	0.9					2.4	0.9	2.4	0.7					2.6	0.8	2.3	0.7	
	W	19	3:43	9:38	15:48	22:27			S	19	4:32	10:54	16:52	22:56			M	19	4:25	11:00	17:00	22:58	
			2.2	0.9	2.5	0.7					2.6	0.6	2.5	0.5					2.9	0.6	2.4	0.5	
A	Th	20	4:38	10:42	16:48	23:12			S	20	5:10	11:35	17:35	23:33			Tu	20	5:10	11:44	17:45	23:33	
			2.4	0.7	2.7	0.6					2.9	0.4	2.7	0.4					3.1	0.1	2.7	0.4	
	F	21	5:18	11:28	17:32	23:46			M	21	5:47	12:10	18:13	. . .			W	21	5:52	12:25	18:27	. .	
			2.6	0.6	2.8	0.4					3.1	0.2	1.8	. . .					3.4	0.1	2.7	. . .	
E	S	22	5:53	12:06	18:10	. . .		○	Tu	22	0:07	6:20	12:45	18:48		○ N	Th	22	0:12	6:34	13:04	19:06	
			2.9	0.3	2.9	. . .					0.3	3.3	0.1	2.9					0.3	3.9	—0.1	2.8	
	S	23	0:15	6:25	12:37	18:42			W	23	0:38	6:55	13:18	19:22			F	23	0:50	7:13	13:42	19:45	
			0.3	3.1	0.2	3.0					0.2	3.5	—0.1	2.9					0.2	3.7	—0.2	2.9	
○	M	24	0:44	6:52	13:07	19:12			Th	24	1:12	7:30	13:55	19:57			S	24	1:28	7:54	14:22	20:24	
			0.2	3.2	0.0	3.0					0.1	3.6	—0.2	2.9					0.1	3.7	—0.2	2.9	
	Tu	25	1:08	7:20	13:36	19:42		N	F	25	1:40	8:07	14:32	20:33			S	25	2:08	8:37	15:03	21:06	
			0.1	3.4	—0.1	3.0					0.2	3.6	—0.2	2.9					0.1	3.7	—0.2	2.9	
	W	26	1:33	7:52	14:08	20:12			S	26	2:15	8:47	15:12	21:10			M	26	2:50	9:20	15:47	21:48	
			0.1	3.4	—0.1	3.0					0.2	3.6	—0.1	2.8					0.1	3.6	—0.1	2.8	
	Th	27	2:00	8:24	14:42	20:42			S	27	2:54	9:30	15:57	21:55		P	Tu	27	3:36	10:06	16:32	22:38	
			0.1	3.5	—0.1	2.9					0.3	3.4	0.0	2.7					0.2	3.4	0.0	2.8	
	F	28	2:33	9:00	15:22	21:18			M	28	3:40	10:18	16:47	22:48			W	28	4:30	10:58	17:21	23:35	
			0.1	3.4	0.0	2.8					0.4	3.3	0.2	2.6					0.4	3.1	0.2	2.8	
N	S	29	3:05	9:42	16:05	22:00			Tu	29	4:34	11:15	17:45	23:52		E ☾	Th	29	5:35	11:56	18:17	. . .	
			0.2	3.3	0.1	2.7					0.5	3.0	0.4	2.5					0.5	2.8	0.4	. . .	
	S	30	3:45	10:32	16:59	22:52		☾	W	30	5:45	12:22	18:50	. . .			F	30	0:38	6:50	13:05	19:20	
			0.4	3.1	0.3	2.5					0.7	2.8	0.5	. . .					2.8	0.6	2.6	0.5	
☾	M	31	4:37	11:30	18:02	. . .											S	31	1:47	8:13	14:25	20:28	
			0.6	2.9	0.5	. . .													2.8	0.6	2.5	0.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	6:00 5.5	12:34 —0.3	18:44 5.1	. . . . . .
N	S	2	0:45 0.3	6:55 5.7	13:24 —0.7	19:38 5.3
○	S	3	1:37 0.2	7:45 5.9	14:15 —0.9	20:27 5.5
P	M	4	2:38 0.1	8:35 5.9	15:07 —0.9	21:16 5.6
	Tu	5	3:22 0.2	9:24 5.9	15:56 —0.8	22:14 5.6
	W	6	4:20 0.2	10:13 5.7	16:48 —0.6	22:54 5.5
	Th	7	5:17 0.4	11:04 5.4	17:41 —0.3	23:45 5.4
E	F	8	6:18 0.5	11:57 5.0	18:40 0.0	. . . . . .
☾	S	9	0:37 5.2	7:23 0.6	12:54 4.7	19:38 0.3
	S	10	1:34 5.0	8:28 0.6	14:00 4.4	20:41 0.5
	M	11	2:32 4.8	9:32 0.6	15:08 4.1	21:43 0.6
	Tu	12	3:31 4.7	10:28 0.5	16:22 4.0	22:41 0.7
	W	13	4:32 4.7	11:24 0.4	17:35 4.1	23:37 0.8
	Th	14	5:28 4.8	12:15 0.3	18:30 4.2	. . . . . .
S	F	15	0:30 0.8	6:19 4.9	13:02 0.1	19:15 4.3
	S	16	1:17 0.8	7:05 5.0	13:42 0.0	19:55 4.4
●	S	17	2:00 0.8	7:48 5.0	14:22 0.0	20:30 4.5
	M	18	2:37 0.9	8:25 5.0	14:59 0.0	21:04 4.6
A	Tu	19	3:12 1.0	9:00 4.9	15:32 0.2	21:36 4.6
	W	20	3:43 1.0	9:32 4.8	16:05 0.3	22:05 4.7
	Th	21	4:15 1.1	10:05 4.7	16:36 0.4	22:40 4.8
E	F	22	4:45 1.1	10:40 4.6	17:06 0.6	23:15 4.8
	S	23	5:24 1.1	11:28 4.6	17:42 0.7	23:57 4.8
	S	24	6:12 1.0	12:03 4.5	18:24 0.8	. . . . . .
☽	M	25	0:42 4.8	7:10 1.0	12:54 4.4	19:15 1.0
	Tu	26	1:31 4.8	8:10 0.9	13:53 4.3	20:15 1.0
	W	27	2:28 4.8	9:15 0.6	15:00 4.3	21:18 1.0
	Th	28	3:28 4.9	10:17 0.3	16:11 4.4	22:26 0.8
N	F	29	4:30 5.1	11:15 0.0	17:20 4.7	23:27 0.6
	S	30	5:33 5.4	12:10 —0.4	18:21 5.0	. . . . . .
	S	31	0:26 0.3	6:32 5.7	13:04 —0.7	19:16 5.3

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○ P	M	1	1:20 0.1	7:27 5.9	13:54 —0.9	20:07 5.6
	Tu	2	2:14 0.0	8:19 6.0	14:45 —0.9	20:56 5.8
	W	3	3:06 —0.1	9:09 6.0	15:37 —0.9	21:44 5.8
E	Th	4	4:00 —0.1	9:57 5.8	16:27 —0.6	22:30 5.7
	F	5	4:55 0.0	10:45 5.5	17:16 —0.3	23:18 5.6
	S	6	5:52 0.2	11:36 5.2	18:10 0.0	. . . . . .
	S	7	0:08 5.3	6:53 0.3	12:30 4.8	19:10 0.4
☾	M	8	1:02 5.0	7:56 0.5	13:30 4.4	20:12 0.7
	Tu	9	1:57 4.8	9:02 0.6	14:41 4.0	21:16 0.8
	W	10	3:00 4.6	10:02 0.6	15:56 3.9	22:20 0.9
S	Th	11	4:02 4.5	11:00 0.5	17:10 3.9	23:20 0.9
	F	12	5:02 4.5	11:52 0.4	18:08 4.1	. . . . . .
	S	13	0:12 0.9	5:57 4.6	12:37 0.3	18:55 4.3
	S	14	1:00 0.8	6:44 4.8	13:19 0.2	19:33 4.4
A	M	15	1:40 0.8	7:27 4.9	13:57 0.1	20:07 4.6
●	Tu	16	2:15 0.8	8:04 4.9	14:33 0.1	20:37 4.7
	W	17	2:47 0.8	8:37 4.9	15:04 0.2	21:07 4.8
	Th	18	3:17 0.8	9:10 4.9	15:32 0.3	21:37 4.9
E	F	19	3:45 0.8	9:42 4.9	16:02 0.4	22:18 5.0
	S	20	4:15 0.7	10:15 4.8	16:32 0.5	22:42 5.0
	S	21	4:52 0.7	10:55 4.8	17:05 0.6	23:21 5.0
	M	22	5:40 0.7	11:38 4.7	17:45 0.8	. . . . . .
	Tu	23	0:04 4.9	6:31 0.7	12:27 4.5	18:35 1.0
☽	W	24	0:54 4.8	7:33 0.7	13:25 4.4	19:38 1.1
	Th	25	1:52 4.7	8:42 0.7	14:30 4.3	20:50 1.1
N	F	26	2:57 4.8	9:49 0.5	15:45 4.4	22:02 1.0
	S	27	4:04 4.9	10:51 0.2	16:55 4.6	23:10 0.7
	S	28	5:10 5.1	11:50 —0.2	18:00 5.0	. . . . . .
	M	29	0:10 0.3	6:12 5.5	12:43 —0.5	18:55 5.3

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	1:06 0.0	7:10 5.7	13:35 —0.7	19:46 5.7
	W	2	1:57 —0.3	8:02 5.9	14:24 —0.8	20:33 5.9
E	Th	3	2:48 —0.4	8:52 5.9	15:12 —0.7	21:18 5.9
	F	4	3:38 —0.4	9:37 5.8	16:00 —0.5	22:04 5.9
	S	5	4:30 —0.3	10:25 5.6	16:52 —0.2	22:50 5.7
	S	6	5:25 —0.1	11:12 5.2	17:42 0.2	23:37 5.3
	M	7	6:22 0.2	12:05 4.7	18:40 0.6	. . . . . .
☾	Tu	8	0:28 5.0	7:24 0.4	18:02 4.3	19:44 0.9
S	W	9	1:22 4.6	8:27 0.6	14:07 4.0	20:52 1.0
	Th	10	2:22 4.4	9:32 0.7	15:22 3.8	21:57 1.1
	F	11	3:27 4.2	10:30 0.6	16:35 3.8	22:57 1.0
	S	12	4:35 4.2	11:23 0.6	17:33 4.0	23:49 0.9
	S	13	5:30 4.4	12:08 0.4	18:20 4.2	. . . . . .
A	M	14	0:34 0.8	6:17 4.6	12:50 0.3	18:58 4.5
	Tu	15	1:14 0.7	7:00 4.8	13:26 0.2	19:32 4.7
	W	16	1:45 0.6	7:37 4.9	14:00 0.2	20:08 4.9
● E	Th	17	2:17 0.5	8:12 5.0	14:32 0.2	20:34 5.1
	F	18	2:47 0.4	8:45 5.0	15:02 0.3	21:05 5.1
	S	19	3:19 0.3	9:20 5.0	15:30 0.3	21:38 5.2
	S	20	3:50 0.3	9:55 5.0	16:02 0.5	22:12 5.1
	M	21	4:30 0.3	10:35 4.9	16:37 0.7	22:50 5.1
	Tu	22	5:15 0.4	11:18 4.8	17:21 0.9	23:35 4.9
	W	23	6:07 0.5	12:08 4.6	18:10 1.1	. . . . . .
N ☽	Th	24	0:24 4.8	7:10 0.7	13:05 4.5	19:18 1.3
	F	25	1:24 4.6	8:18 0.7	14:12 4.4	20:37 1.3
	S	26	2:30 4.6	9:27 0.6	15:24 4.4	21:54 1.0
	S	27	3:42 4.6	10:30 0.3	16:35 4.6	23:00 0.7
	M	28	4:52 4.9	11:28 0.0	17:37 5.0	23:57 0.3
P	Tu	29	5:55 5.2	12:23 —0.3	18:32 5.4	. . . . . .
E	W	30	0:48 —0.1	6:54 5.5	13:12 —0.4	19:21 5.7
○	Th	31	1:40 —0.4	7:44 5.7	14:00 —0.5	20:08 5.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a.m.), all greater are in the afternoon (p.m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N. S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	2:28	8:32	14:47	20:54
			—0.5	5.7	—0.4	5.9
	S	2	3:16	9:18	15:32	21:37
			—0.5	5.7	—0.2	5.8
	S	3	4:05	10:04	16:22	22:20
			—0.4	5.4	0.1	5.6
	M	4	4:57	10:50	17:12	23:05
			—0.2	5.1	0.5	5.2
	Tu	5	5:52	11:40	18:10	23:53
			0.1	4.7	0.9	4.9
S	W	6	6:50	12:32	19:15	. . .
			0.4	4.3	1.1	. . .
☾	Th	7	0:45	7:50	13:32	20:24
			4.5	0.6	4.1	1.3
	F	8	1:42	8:52	14:40	21:30
			4.1	0.7	3.9	1.2
	S	9	2:46	9:50	15:46	22:27
			4.0	0.7	3.9	1.2
A	S	10	3:52	10:43	16:44	23:17
			4.1	0.7	4.0	1.0
	M	11	4:51	11:29	17:32	. . .
			4.2	0.6	4.3	. . .
	Tu	12	0:00	5:42	12:10	18:12
			0.8	4.4	0.5	4.6
E	W	13	0:37	6:28	12:48	18:51
			0.6	4.6	0.4	4.9
	Th	14	1:12	7:08	13:23	19:27
			0.4	4.8	0.3	5.1
●	F	15	1:45	7:47	13:55	20:00
			0.2	5.0	0.3	5.3
	S	16	2:18	8:22	14:28	20:36
			0.0	5.1	0.3	5.3
	S	17	2:54	9:00	15:02	21:12
			0.0	5.2	0.4	5.3
	M	18	3:34	9:38	15:38	21:50
			—0.1	5.1	0.5	5.3
	Tu	19	4:14	10:20	16:12	22:30
			0.0	5.0	0.7	5.2
N	W	20	5:00	11:06	17:04	23:15
			0.2	4.9	0.9	4.9
	Th	21	5:53	11:57	18:02	. . .
			0.4	4.7	1.1	. . .
	F	22	0:05	6:54	12:54	19:15
			4.7	0.6	4.5	1.3
☽	S	23	1:06	8:00	14:00	20:35
			4.5	0.6	4.4	1.2
	S	24	2:12	9:10	15:07	21:47
			4.4	0.6	4.5	1.0
	M	25	3:26	10:12	16:12	22:48
			4.4	0.4	4.7	0.6
P	Tu	26	4:36	11:08	17:12	23:44
			4.6	0.2	5.0	0.2
E	W	27	5:40	12:00	18:06	. . .
			4.9	0.0	5.3	. . .
	Th	28	0:34	6:36	12:50	18:57
			—0.1	5.2	—0.1	5.6
○	F	29	1:22	7:27	13:38	19:43
			—0.4	5.3	—0.1	5.7
	S	30	2:10	8:15	14:25	20:27
			—0.5	5.4	0.0	5.8
	MAY.					
	S	1	2:57	9:00	15:10	21:11
			—0.5	5.3	0.2	5.7
	M	2	3:43	9:43	15:56	21:54
			—0.4	5.1	0.5	5.4
S	Tu	3	4:32	10:28	16:45	22:36
			—0.2	4.9	0.8	5.1
	W	4	5:22	11:15	17:40	23:20
			0.1	4.6	1.1	4.8
	Th	5	6:15	12:02	18:42	. . .
			0.4	4.4	1.3	. . .
	F	6	0:07	7:10	12:56	19:47
			4.4	0.7	4.2	1.4
☾	S	7	1:00	8:07	13:51	20:50
			4.1	0.8	4.0	1.4
A	S	8	1:57	9:03	14:49	21:47
			4.0	0.8	4.0	1.3
	M	9	2:59	9:54	15:44	22:34
			3.9	0.8	4.2	1.1
	Tu	10	4:02	10:40	16:36	23:16
			4.0	0.7	4.3	0.8
E	W	11	4:58	11:24	17:22	23:56
			4.2	0.6	4.7	0.5
	Th	12	5:47	12:03	18:06	. . .
			4.5	0.5	5.0	. . .
	F	13	0:34	6:34	12:43	18:48
			0.2	4.8	0.4	5.2
	S	14	1:12	7:17	13:20	19:28
			—0.1	5.0	0.3	5.4
●	S	15	1:54	7:59	14:00	20:08
			—0.3	5.1	0.3	5.5
	M	16	2:33	8:42	14:38	20:48
			—0.4	5.2	0.4	5.5
	Tu	17	3:17	9:24	15:21	21:31
			—0.4	5.2	0.5	5.4
N	W	18	4:00	10:08	16:06	22:15
			—0.3	5.2	0.7	5.3
	Th	19	4:48	10:57	17:00	23:02
			—0.1	5.0	0.9	5.1
	F	20	5:43	11:47	18:02	23:53
			0.1	4.9	1.1	4.8
	S	21	6:42	12:44	19:15	. . .
			0.4	4.7	1.2	. . .
☽	S	22	0:52	7:45	13:44	20:30
P			4.5	0.5	4.6	1.1
	M	23	1:57	8:50	14:47	21:36
			4.4	0.5	4.6	0.9
E	Tu	24	3:10	9:54	15:50	22:36
			4.3	0.5	4.8	0.6
	W	25	4:20	10:48	16:48	23:28
			4.4	0.4	5.0	0.2
	Th	26	5:25	11:41	17:42	. . .
			4.6	0.3	5.2	. . .
	F	27	0:19	6:23	12:32	18:33
			0.0	4.8	0.3	5.4
	S	28	1:07	7:14	13:20	19:20
			—0.3	4.9	0.3	5.5
○	S	29	1:53	8:00	14:06	20:06
			—0.4	4.9	0.4	5.5
	M	30	2:39	8:45	14:50	20:47
			—0.4	4.9	0.5	5.4
S	Tu	31	3:23	9:27	15:35	21:30
			—0.3	4.9	0.7	5:3
	JUNE.					
	W	1	4:07	10:07	16:22	22:08
			—0.1	4.7	1.0	5.0
	Th	2	4:52	10:49	17:11	22:50
			0.1	4.6	1.2	4.7
	F	3	5:38	11:32	18:03	23:30
			0.4	4.5	1.4	4.4
	S	4	6:25	12:17	19:00	. . .
			0.7	4.4	1.5	. . .
A	S	5	0:15	7:16	13:04	19:55
			4.2	0.8	4.3	1.5
☾	M	6	1:05	8:05	13:55	20:50
			4.0	0.9	4.3	1.4
E	Tu	7	2:00	8:57	14:47	21:40
			4.0	1.0	4.4	1.1
	W	8	3:02	9:44	15:38	22:27
			4.0	0.9	4.6	0.8
	Th	9	4:04	10:38	16:30	23:13
			4.1	0.8	4.8	0.5
	F	10	5:02	11:17	17:20	23:58
			4.3	0.7	5.0	0.1
	S	11	5:59	12:03	18:10	. . .
			4.6	0.5	5.3	. . .
	S	12	0:42	6:48	12:50	18:58
			—0.2	4.9	0.4	5.5
●	M	13	1:27	7:36	13:34	19:45
			—0.4	5.1	0.3	5.7
N	Tu	14	2:13	8:23	14:24	20:32
			—0.6	5.3	0.3	5.7
	W	15	2:58	9:10	15:08	21:12
			—0.6	5.4	0.4	5.7
	Th	16	3:48	9:56	16:02	22:03
			—0.6	5.4	0.5	5.5
P	F	17	4:37	10:45	16:57	22:50
			—0.4	5.3	0.6	5.3
	S	18	5:29	11:37	17:58	23:42
			—0.1	5.1	0.8	5.0
	S	19	6:27	12:27	19:06	. . .
			0.1	5.0	0.8	. . .
☽	M	20	0:40	7:25	13:25	20:13
E			4.7	0.4	4.9	0.8
	Tu	21	1:41	8:30	14:22	21:18
			4.4	0.5	4.8	0.7
	W	22	2:52	9:30	15:22	22:17
			4.3	0.6	4.8	0.5
	Th	23	4:04	10:28	16:25	23:14
			4.2	0.6	4.9	0.3
	F	24	5:13	11:25	17:20	. . .
			4.2	0.6	5.0	. . .
	S	25	0:05	6:12	12:18	18:13
			0.1	4.4	0.6	5.2
	S	26	0:55	7:05	13:08	19:02
			0.0	4.5	0.6	5.3
S ○	M	27	1:40	7:50	13:53	19:47
			—0.2	4.6	0.7	5.3
	Tu	28	2:23	8:32	14:38	20:28
			—0.2	4.6	0.8	5.3
	W	29	3:05	9:11	15:20	21:08
			—0.2	4.7	0.9	5.2
	Th	30	3:45	9:48	16:00	21:45
			0.0	4.6	1.1	5.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	4:25 0.2	10:22 4.6	16:40 1.2	22:22 4.7
	S	2	5:02 0.4	11:00 4.6	17:21 1.3	23:00 4.5
A	S	3	5:42 0.6	11:37 4.6	18:04 1.4	23:35 4.5
E	M	4	6:18 0.8	12:20 4.6	18:54 1.4	. . . . . .
☾	Tu	5	0:18 4.2	7:02 0.9	13:05 4.6	19:45 1.3
	W	6	1:10 4.2	7:48 1.1	13:54 4.6	20:40 1.1
	Th	7	2:07 4.1	8:43 1.1	14:48 4.6	21:35 0.8
	F	8	3:12 4.2	9:38 1.0	15:42 4.8	22:29 0.5
	S	9	4:18 4.3	10:29 0.9	16:38 5.0	23:20 0.1
	S	10	5:22 4.5	11:28 0.7	17:36 5.3	. . . . . .
N	M	11	0:12 —0.2	6:20 4.8	12:20 0.5	18:30 5.5
	Tu	12	1:04 —0.5	7:14 5.1	13:14 0.3	19:22 5.7
●	W	13	1:53 —0.7	8:05 5.4	14:04 0.2	20:12 5.9
	Th	14	2:42 —0.8	8:52 5.5	14:57 0.1	21:01 5.8
P	F	15	3:30 —0.8	9:39 5.6	15:50 0.2	21:50 5.7
	S	16	4:20 —0.6	10:27 5.6	16:45 0.3	22:38 5.5
E	S	17	5:15 —0.4	11:15 5.5	17:42 0.4	23:28 5.2
	M	18	6:05 0.0	12:05 5.3	18:40 0.5	. . . . . .
☽	Tu	19	0:23 4.9	7:05 0.3	12:58 5.1	19:50 0.6
	W	20	1:20 4.5	8:05 0.5	13:55 4.9	20:55 0.6
	Th	21	2:29 4.2	9:10 0.7	14:57 4.8	21:57 0.5
	F	22	3:45 4.0	10:12 0.8	15:58 4.7	22:58 0.4
	S	23	5:00 4.0	11:12 0.8	17:00 4.7	23:50 0.3
S	S	24	6:05 4.1	12:06 0.8	17:55 4.8	. . . . . .
	M	25	0:38 0.1	6:55 4.3	12:56 0.7	18:45 5.0
	Tu	26	1:23 0.0	7:40 4.4	13:42 0.7	19:30 5.0
○	W	27	2:05 0.0	8:17 4.6	14:24 0.8	20:12 5.0
	Th	28	2:45 0.0	8:52 4.6	15:02 0.8	20:50 5.0
	F	29	3:20 0.1	9:25 4.7	15:38 0.9	21:24 4.9
A	S	30	3:55 0.2	9:55 4.7	16:08 1.0	21:56 4.8
	S	31	4:27 0.4	10:27 4.8	16:40 1.1	22:27 4.6

AUGUST.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
E	M	1	4:56 0.6	11:00 4.8	17:15 1.1	23:05 4.5
	Tu	2	5:27 0.8	11:40 4.8	17:54 1.1	23:45 4.5
	W	3	6:05 0.9	12:20 4.8	18:45 1.0	. . . . . .
☾	Th	4	0:31 4.4	6:50 1.0	13:07 4.7	19:45 1.0
	F	5	1:25 4.3	7:47 1.1	14:00 4.7	20:48 0.8
	S	6	2:30 4.2	8:50 1.1	15:00 4.7	21:52 0.6
	S	7	3:40 4.2	9:57 1.0	16:02 4.9	22:51 0.2
N	M	8	4:50 4.5	11:01 0.8	17:06 5.1	23:47 —0.2
	Tu	9	5:55 4.8	12:00 0.5	18:06 5.5	. . . . . .
	W	10	0:40 —0.5	6:51 5.2	12:56 0.2	19:03 5.7
●	Th	11	1:30 —0.7	7:42 5.5	13:49 0.0	19:55 5.9
P	F	12	2:20 —0.9	8:32 5.7	14:41 —0.2	20:45 6.0
	S	13	3:10 —0.8	9:18 5.9	15:32 —0.2	21:34 5.9
E	S	14	3:58 —0.7	10:05 5.8	16:27 —0.2	22:21 5.7
	M	15	4:48 —0.4	10:50 5.7	17:20 0.0	23:10 5.4
	Tu	16	5:40 0.0	11:40 5.5	18:18 0.2	. . . . . .
	W	17	0:02 5.0	6:37 0.3	12:32 5.2	19:25 0.4
☽	Th	18	1:00 4.5	7:42 0.7	13:27 4.9	20:28 0.5
	F	19	2:06 4.2	8:47 0.8	14:27 4.6	21:33 0.5
S	S	20	3:22 3.9	9:55 0.9	15:32 4.4	22:33 0.5
	S	21	4:41 3.9	10:57 0.9	16:38 4.5	23:28 0.4
	M	22	5:46 4.0	11:54 0.8	17:37 4.6	. . . . . .
	Tu	23	0:18 0.3	6:38 4.3	12:43 0.8	18:27 4.7
	W	24	1:04 0.2	7:20 4.4	13:26 0.7	19:12 4.8
○	Th	25	1:44 0.1	7:55 4.6	14:04 0.7	19:54 4.9
	F	26	2:19 0.1	8:26 4.7	14:39 0.7	20:27 4.9
A	S	27	2:54 0.2	8:56 4.8	15:08 0.7	21:02 4.9
E	S	28	3:18 0.3	9:25 4.9	15:36 0.7	21:30 4.8
	M	29	3:51 0.4	9:54 4.9	16:05 0.7	22:01 4.8
	Tu	30	4:13 0.6	10:25 4.9	16:37 0.7	22:37 4.7
	W	31	4:49 0.7	11:00 4.9	17:19 0.8	23:16 4.6

SEPTEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	5:23 0.8	11:40 4.8	18:05 0.8	. . . . . .
☾	F	2	0:03 4.5	6:08 1.0	12:27 4.8	19:05 0.8
	S	3	0:57 4.4	7:06 1.2	13:20 4.7	20:10 0.8
N	S	4	1:59 4.3	8:15 1.2	14:25 4.6	21:20 0.6
	M	5	3:10 4.3	9:32 1.1	15:32 4.7	22:20 0.4
	Tu	6	4:20 4.5	10:42 0.8	16:40 5.0	23:22 0.0
	W	7	5:28 4.8	11:42 0.5	17:45 5.3	. . . . . .
	Th	8	0:15 —0.3	6:27 5.3	12:37 0.1	18:45 5.6
P ●	F	9	1:08 —0.6	7:20 5.6	13:30 —0.3	19:37 5.8
E	S	10	1:58 —0.9	8:07 5.9	14:24 —0.5	20:26 5.9
	S	11	2:45 —0.7	8:53 6.0	15:12 —0.5	21:16 5.9
	M	12	3:34 —0.6	9:40 6.0	16:02 —0.5	22:02 5.7
	Tu	13	4:25 —0.3	10:23 5.8	16:55 —0.3	22:50 5.4
	W	14	5:15 0.1	11:12 5.5	17:52 0.0	23:42 5.0
	Th	15	6:11 0.5	12:01 5.2	18:55 0.2	. . . . . .
☽	F	16	0:37 4.5	7:16 0.8	12:56 4.8	19:58 0.5
S	S	17	1:40 4.2	8:25 1.0	13:55 4.5	21:04 0.6
	S	18	2:53 3.9	9:35 1.1	15:00 4.2	22:05 0.6
	M	19	4:10 3.9	10:38 1.0	16:10 4.2	23:03 0.5
	Tu	20	5:11 4.0	11:33 0.9	17:12 4.4	23:51 0.5
	W	21	6:04 4.2	12:21 0.8	18:04 4.5	. . . . . .
	Th	22	0:35 0.3	6:45 4.5	13:01 0.7	18:52 4.6
A	F	23	1:14 0.3	7:21 4.7	13:37 0.6	19:28 4.8
○ E	S	24	1:48 0.3	7:52 4.9	14:07 0.5	20:04 4.9
	S	25	2:20 0.3	8:22 5.0	14:40 0.4	20:34 4.9
	M	26	2:52 0.4	8:52 5.0	15:07 0.4	21:06 4.9
	Tu	27	3:17 0.5	9:21 5.1	15:37 0.4	21:38 4.9
	W	28	3:45 0.6	9:54 5.1	16:11 0.4	22:16 4.9
	Th	29	4:16 0.7	10:30 5.0	16:52 0.4	22:58 4.8
	F	30	4:56 0.9	11:11 4.9	17:41 0.6	23:45 4.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
N	S	1	5:41 1.1	11:58 4.7	18:37 0.7	. . .
☾	S	2	0:34 4.5	6:50 1.3	12:52 4.6	19:41 0.7
	M	3	1:39 4.4	7:57 1.3	13:55 4.5	20:52 0.7
	Tu	4	2:48 4.4	9:17 1.1	15:05 4.6	21:53 0.5
	W	5	3:58 4.6	10:26 0.8	16:17 4.7	22:56 0.2
	Th	6	5:02 4.9	11:27 0.8	17:24 5.0	23:52 —0.1
	F	7	6:00 5.3	12:22 0.0	18:25 5.4	. . .
P E	S	8	0:43 —0.3	6:52 5.6	13:13 —0.3	19:18 5.6
●	S	9	1:32 —0.5	7:41 5.9	14:02 —0.6	20:07 5.8
	M	10	2:21 —0.4	8:27 6.0	14:53 —0.7	20:56 5.7
	Tu	11	3:08 —0.3	9:13 6.0	15:40 —0.6	21:44 5.6
	W	12	3:57 0.0	9:58 5.8	16:32 —0.4	22:30 5.3
	Th	13	4:48 0.3	10:44 5.5	17:27 —0.1	23:21 4.9
S	F	14	5:48 0.7	11:32 5.1	18:25 0.2	. . .
	S	15	0:14 4.6	6:52 1.0	12:24 4.7	19:26 0.4
☽	S	16	1:14 4.2	8:00 1.2	13:22 4.2	20:28 0.6
	M	17	2:18 4.0	9:09 1.2	14:25 4.1	21:30 0.6
	Tu	18	3:25 4.0	10:12 1.1	15:32 4.0	22:25 0.6
	W	19	4:26 4.1	11:03 1.0	16:35 4.1	23:15 0.6
A	Th	20	5:18 4.2	11:49 0.8	17:31 4.2	23:57 0.5
	F	21	6:00 4.5	12:27 0.6	18:17 4.4	. . .
E	S	22	0:38 0.5	6:38 4.8	13:02 0.5	18:58 4.6
	S	23	1:10 0.4	7:13 5.0	13:34 0.3	19:33 4.8
○	M	24	1:43 0.4	7:48 5.1	14:08 0.1	20:12 4.9
	Tu	25	2:15 0.5	8:20 5.2	14:45 0.1	20:45 5.0
	W	26	2:45 0.5	8:54 5.3	15:16 0.0	21:22 5.0
	Th	27	3:20 0.6	9:30 5.2	15:53 0.1	22:02 5.0
	F	28	3:55 0.8	10:07 5.1	16:36 0.2	22:44 4.9
N	S	29	4:36 0.9	10:50 5.0	17:25 0.3	23:31 4.7
	S	30	5:30 1.1	11:37 4.8	18:19 0.5	. . .
☾	M	31	0:25 4.6	6:36 1.2	12:32 4.6	19:24 0.6

NOVEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Tu	1	1:24 4.5	7:54 1.3	13:35 4.4	20:31 0.7
	W	2	2:28 4.5	9:08 1.1	14:47 4.4	21:35 0.5
	Th	3	3:34 4.7	10:15 0.7	16:00 4.5	22:30 0.3
E	F	4	4:37 5.0	11:12 0.3	17:05 4.8	23:30 0.2
P	S	5	5:34 5.3	12:05 —0.1	18:07 5.1	. . .
	S	6	0:24 0.0	6:26 5.5	12:55 —0.4	19:02 5.4
●	M	7	1:12 —0.1	7:16 5.8	13:44 —0.6	19:50 5.4
	Tu	8	1:58 —0.1	8:04 5.9	14:33 —0.6	20:41 5.4
	W	9	2:45 0.1	8:48 5.8	15:20 —0.6	21:25 5.3
S	Th	10	3:34 0.3	9:35 5.6	16:10 —0.4	22:12 5.2
	F	11	4:26 0.6	10:18 5.3	17:01 —0.2	22:59 4.8
	S	12	5:21 0.9	11:05 5.0	17:54 0.1	23:48 4.6
	S	13	6:25 1.1	11:52 4.6	18:50 0.4	. . .
☽	M	14	0:40 4.3	7:31 1.3	12:44 4.3	19:50 0.6
	Tu	15	1:37 4.2	8:35 1.3	13:42 4.0	20:45 0.7
	W	16	2:35 4.1	9:34 1.2	14:43 3.9	21:38 0.7
A	Th	17	3:29 4.2	10:22 1.1	15:45 3.9	22:22 0.7
E	F	18	4:22 4.4	11:06 0.9	16:45 4.1	23:11 0.7
	S	19	5:08 4.6	11:46 0.6	17:35 4.2	23:52 0.6
	S	20	5:51 4.8	12:24 0.4	18:21 4.5	. . .
	M	21	0:30 0.6	6:32 5.1	13:02 0.1	19:04 4.7
○	Tu	22	1:06 0.5	7:12 5.2	13:38 —0.1	19:44 4.9
	W	23	1:43 0.5	7:51 5.4	14:12 —0.2	20:25 5.0
	Th	24	2:20 0.5	8:30 5.4	14:57 —0.3	21:05 5.1
N	F	25	3:00 0.6	9:11 5.4	15:40 —0.3	21:48 5.1
	S	26	3:42 0.7	9:52 5.3	16:24 —0.1	22:32 5.0
	S	27	4:30 0.6	10:38 5.1	17:14 0.1	23:20 4.9
	M	28	5:30 1.0	11:25 4.9	18:08 0.3	. . .
	Tu	29	0:10 4.8	6:35 1.1	12:19 4.6	19:10 0.5
☾	W	30	1:10 4.7	7:47 1.1	13:20 4.4	20:11 0.6

DECEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	2:08 4.7	8:56 0.9	14:28 4.4	21:14 0.6
E P	F	2	3:10 4.8	9:58 0.7	15:40 4.4	22:12 0.5
	S	3	4:12 4.9	10:57 0.3	16:48 4.5	23:10 0.4
	S	4	5:09 5.1	11:52 0.0	17:50 4.7	. . .
	M	5	0:02 0.3	6:02 5.4	12:40 —0.2	18:48 4.8
●	Tu	6	0:53 0.3	6:53 5.5	13:28 —0.4	19:37 5.0
	W	7	1:42 0.3	7:42 5.6	14:16 —0.5	20:25 5.0
S	Th	8	2:30 0.4	8:28 5.6	15:03 —0.5	21:09 5.0
	F	9	3:18 0.6	9:12 5.5	15:49 —0.3	21:53 4.9
	S	10	4:05 0.8	9:55 5.2	16:37 —0.1	22:37 4.8
	S	11	4:57 1.0	10:37 5.4	17:23 0.1	23:20 4.6
	M	12	5:50 1.2	11:20 4.6	18:12 0.5	. . .
	Tu	13	0:04 4.5	6:48 1.3	12:02 4.3	19:04 0.7
☽ A	W	14	0:53 4.4	7:45 1.4	12:53 4.1	19:52 0.8
E	Th	15	1:42 4.3	8:40 1.3	13:46 4.0	20:42 0.9
	F	16	2:31 4.4	9:28 1.2	14:45 3.9	21:30 1.0
	S	17	3:22 4.5	10:15 1.0	15:45 4.0	22:17 0.9
	S	18	4:13 4.6	11:00 0.7	16:45 4.1	23:05 0.8
	M	19	5:03 4.8	11:43 0.8	17:40 4.4	23:48 0.7
	Tu	20	5:52 5.1	12:26 0.0	18:30 4.6	. . .
	W	21	0:34 0.6	6:40 5.3	13:10 —0.2	19:18 4.9
○ N	Th	22	1:17 0.5	7:25 5.5	13:54 —0.4	20:05 5.1
	F	23	2:00 0.5	8:10 5.6	14:41 —0.5	20:50 5.2
	S	24	2:47 0.4	8:55 5.6	15:25 —0.5	21:35 5.3
	S	25	3:35 0.5	9:40 5.5	16:15 —0.4	22:20 5.3
	M	26	4:29 0.6	10:25 5.4	17:00 —0.2	23:07 5.2
P	Tu	27	5:25 0.7	11:13 5.1	17:55 0.1	23:57 5.1
	W	28	6:25 0.8	12:07 4.8	18:50 0.3	. . .
E ☾	Th	29	0:50 5.0	7:32 0.8	13:06 4.6	19:50 0.5
	F	30	1:47 4.9	8:38 0.7	14:10 4.3	20:52 0.7
	S	31	2:45 4.8	9:42 0.6	14:22 4.2	21:54 0.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Intercolonial Standard, 60th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:40 0.0	8:48 19.4	15:14 —1.5	21:16 18.9
N	S	2	3:33 —0.7	9:40 19.8	16:04 —1.8	22:07 20.0
○	S	3	4:24 —1.3	10:30 20.1	16:57 —2.1	22:57 20.5
P	M	4	5:13 —1.8	11:20 20.4	17:46 —2.4	23:48 20.8
	Tu	5	6:05 —2.2	12:06 21.2	18:31 —3.2	. . . . . .
	W	6	0:35 20.5	6:52 —2.0	12:59 20.9	19:21 —2.9
	Th	7	1:26 20.2	7:45 —1.7	13:50 20.3	20:14 —2.3
E	F	8	2:20 19.9	8:40 —1.3	14:43 19.6	21:08 —1.6
☾	S	9	3:13 19.4	9:36 —0.8	15:40 18.9	22:05 —0.9
	S	10	4:10 18.9	10:36 —0.5	16:40 18.2	23:03 —0.3
	M	11	5:10 18.4	11:37 —0.2	17:42 17.5	. . . . . .
	Tu	12	0:04 0.2	6:11 18.1	12:38 —0.1	18:42 17.2
	W	13	1:04 0.4	7:10 18.1	13:36 —0.2	19:42 17.1
	Th	14	2:00 0.5	8:05 18.2	14:32 —0.5	20:38 17.1
S	F	15	2:54 0.4	8:58 18.3	15:23 —0.6	21:27 17.2
	S	16	3:42 0.3	9:45 18.4	16:08 —0.7	22:12 17.3
●	S	17	4:27 0.4	10:28 18.3	16:50 —0.6	22:53 17.4
	M	18	5:08 0.5	11:08 18.1	17:30 —0.4	23:30 17.4
A	Tu	19	5:46 0.8	11:44 17.8	18:07 —0.1	. . . . . .
	W	20	0:07 17.4	6:24 1.1	12:22 17.5	18:45 0.3
	Th	21	0:40 17.3	7:00 1.3	12:57 17.3	19:20 0.6
E	F	22	1:20 17.4	7:37 1.5	13:34 17.1	19:58 0.9
	S	23	2:00 17.4	8:18 1.5	14:16 17.0	20:40 1.2
	S	24	2:44 17.2	9:03 1.5	15:02 16.9	21:24 1.5
☽	M	25	3:32 17.2	9:55 1.5	15:54 16.8	22:15 1.6
	Tu	26	4:25 17.3	10:52 1.2	16:52 16.8	23:15 1.6
	W	27	5:22 17.5	11:52 0.8	17:52 17.0	. . . . . .
	Th	28	0:14 1.2	6:22 18.0	12:52 0.1	18:54 17.4
N	F	29	1:14 0.6	7:22 18.7	13:52 —0.8	19:54 18.1
	S	30	2:13 —0.2	8:20 19.6	14:47 —1.7	20:51 19.0
	S	31	3:08 —1.1	9:15 20.4	15:42 —2.6	21:45 19.9

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○ P	M	1	4:03 —2.0	10:08 21.1	16:32 —3.3	22:37 20.6
	Tu	2	4:52 —2.6	11:00 21.5	17:22 —3.6	23:27 20.9
	W	3	5:42 —2.9	11:48 21.6	18:11 —3.6	. . . . . .
E	Th	4	0:16 21.1	6:33 —2.9	12:39 21.4	19:00 —3.3
	F	5	1:05 21.0	7:22 —2.6	13:28 20.8	19:59 —2.6
	S	6	1:55 20.5	8:12 —2.0	14:21 20.0	20:42 —1.8
	S	7	2:48 19.8	9:11 —1.4	15:16 19.0	21:37 —0.8
☾	M	8	3:43 18.9	10:10 —0.6	16:12 18.0	22:35 0.1
	Tu	9	4:42 18.2	11:08 0.0	17:12 17.1	23:36 0.8
	W	10	5:42 17.6	12:11 0.3	18:15 16.6	. . . . . .
S	Th	11	0:36 1.0	6:42 17.4	13:10 0.4	19:15 16.4
	F	12	1:35 1.1	7:40 17.4	14:06 0.2	20:13 16.5
	S	13	2:30 1.0	8:34 17.6	14:48 0.0	21:03 16.8
	S	14	3:20 0.8	9:22 17.7	15:44 —0.1	21:48 17.0
A	M	15	4:04 0.6	10:05 17.8	16:25 —0.2	22:27 17.3
●	Tu	16	4:43 0.5	10:43 17.9	17:03 —0.1	23:04 17.5
	W	17	5:20 0.6	11:19 17.8	17:40 0.0	23:38 17.7
	Th	18	5:52 0.6	11:52 17.8	18:13 0.2	. . . . . .
E	F	19	0:13 17.9	6:30 0.6	12:27 17.7	18:48 0.4
	S	20	0:48 18.0	7:06 0.6	13:05 17.7	19:25 0.6
	S	21	1:26 17.9	7:46 0.7	13:46 17.6	20:04 1.0
	M	22	2:10 17.8	8:32 0.8	14:32 17.4	20:50 1.3
	Tu	23	2:57 17.6	9:22 0.9	15:24 17.1	21:42 1.6
☽	W	24	3:51 17.5	10:18 0.9	16:20 16.9	22:41 1.7
	Th	25	4:50 17.5	11:21 0.7	17:24 17.0	23:45 1.5
N	F	26	5:52 17.9	12:25 0.2	18:28 17.3	. . . . . .
	S	27	0:50 0.8	6:57 18.5	13:26 —0.4	19:30 18.0
	S	28	1:52 —0.2	7:57 19.3	14:25 —1.6	20:30 19.1
	M	29	2:49 —1.3	8:56 20.2	15:20 —2.5	21:25 20.0

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	3:43 —2.2	9:50 21.0	16:12 —3.2	22:16 20.9
	W	2	4:35 —3.0	10:41 21.5	17:01 —3.6	23:05 21.4
E	Th	3	5:24 —3.4	11:30 21.6	17:48 —3.6	23:54 21.5
	F	4	6:12 —3.5	12:18 21.5	18:36 —3.3	. . . . . .
	S	5	0:42 21.2	7:02 —3.1	13:07 20.9	19:25 —2.5
	S	6	1:30 20.0	7:52 —2.4	13:57 19.9	20:17 —1.5
	M	7	2:21 19.7	8:44 —1.5	14:48 19.8	21:09 —0.4
☾	Tu	8	3:14 18.7	9:40 —0.6	15:43 17.6	22:06 0.6
S	W	9	4:10 17.8	10:38 0.2	16:43 16.8	23:05 1.3
	Th	10	5:10 17.1	11:40 0.7	17:45 16.2	. . . . . .
	F	11	0:06 1.7	6:11 16.8	12:40 1.0	18:45 16.0
	S	12	1:05 1.7	7:10 16.8	13:36 0.9	19:42 16.2
	S	13	2:02 1.4	8:05 17.0	14:27 0.6	20:32 16.6
A	M	14	2:50 1.0	8:53 17.2	15:14 0.3	21:16 17.0
	Tu	15	3:34 0.7	9:35 17.5	15:55 0.1	21:56 17.0
	W	16	4:14 0.3	10:14 17.8	16:33 0.0	22:32 17.9
● E	Th	17	4:50 0.1	10:49 18.0	17:08 —0.1	23:07 18.2
	F	18	5:27 0.0	11:25 18.1	17:44 0.0	23:42 18.4
	S	19	6:02 —0.1	12:01 18.2	18:18 0.2	. . . . . .
	S	20	0:19 18.5	6:38 —0.2	12:39 18.2	18:55 0.4
	M	21	0:58 18.4	4:20 —0.1	13:20 18.0	19:36 0.8
	Tu	22	1:42 18.2	8:05 0.1	14:07 17.8	20:22 1.2
	W	23	2:30 18.1	8:56 0.3	15:00 17.4	21:15 1.5
N ☽	Th	24	3:25 17.7	9:53 0.5	15:58 17.1	22:17 1.6
	F	25	4:25 17.6	10:57 0.5	17:00 17.0	23:25 1.5
	S	26	5:30 17.7	12:01 0.2	18:05 17.4	. . . . . .
	S	27	0:28 0.8	6:35 18.2	13:05 —0.4	19:10 18.1
	M	28	1:32 —0.2	7:37 19.0	14:04 —1.4	20:10 19.1
P	Tu	29	2:30 —1.3	8:37 19.9	15:00 —2.2	21:03 20.1
E	W	30	3:24 —2.4	9:30 20.6	15:50 —2.9	21:55 20.9
○	Th	31	4:15 —3.1	10:20 21.2	16:38 —3.2	22:44 21.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 9.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:04	11:09	17:26	23:31
			—3.6	21.3	—3.2	21.4
	S	2	5:52	11:57	18:18	. . .
			—3.5	21.0	—2.7	. . .
	S	3	0:17	6:40	12:45	19:00
			21.0	—3.0	20.4	—1.9
	M	4	1:05	7:28	13:32	19:48
			20.4	—2.3	19.5	—1.0
	Tu	5	1:53	8:18	14:22	20:40
			19.4	—1.4	18.4	0.1
S	W	6	2:44	9:11	15:14	21:30
			18.4	—0.4	17.4	1.1
☾	Th	7	3:40	10:08	16:10	22:33
			17.4	0.5	16.6	1.7
	F	8	4:35	11:05	17:09	23:34
			16.7	1.1	16.0	2.1
	S	9	5:34	12:03	18:07	. . .
			16.3	1.3	15.9	. . .
A	S	10	0:32	6:34	12:59	19:03
			2.0	16.2	1.3	16.1
	M	11	1:27	7:26	13:50	19:55
			1.8	16.4	1.0	16.6
	Tu	12	2:15	8:15	14:36	20:38
			1.3	16.8	0.7	17.2
E	W	13	3:00	9:00	15:19	21:22
			0.7	17.3	0.3	17.8
	Th	14	3:40	9:40	15:58	22:00
			0.1	17.8	0.0	18.3
●	F	15	4:19	10:20	16:36	22:36
			—0.4	18.2	—0.2	18.7
	S	16	4:57	10:57	17:12	23:05
			—0.8	18.5	—0.2	19.0
	S	17	5:37	11:37	17:52	23:54
			—0.9	18.6	0.0	19.1
	M	18	6:16	12:15	18:30	. . .
			—1.0	18.6	0.1	. . .
	Tu	19	0:35	6:59	13:01	19:16
			19.0	—0.9	18.4	0.5
N	W	20	1:20	7:46	13:48	20:03
			18.8	—0.6	18.1	0.4
	Th	21	2:09	8:37	14:42	20:59
			18.4	—0.3	17.8	1.2
☽	F	22	3:05	9:35	15:40	22:00
			18.1	0.1	17.5	1.4
	S	23	4:05	10:38	16:42	23:04
			17.8	0.2	17.4	1.2
	S	24	5:10	11:40	17:45	. . .
			17.7	0.1	17.7	. . .
	M	25	0:10	6:15	12:42	18:48
			0.6	18.0	—0.4	18.0
P	Tu	26	1:12	7:18	13:41	19:47
			—0.3	18.6	—1.0	19.1
E	W	27	2:10	8:15	14:37	20:42
			—1.3	19.4	—1.8	19.9
	Th	28	3:04	9:08	15:27	21:34
			—2.2	20.0	—2.3	20.6
○	F	29	3:55	10:00	16:17	22:22
			—2.9	20.4	—2.5	20.9
	S	30	4:44	10:48	17:04	23:08
			—3.2	20.4	—2.3	20.9

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	5:32	11:36	17:50	23:55
			—3.1	20.1	—1.9	20.5
	M	2	6:18	12:22	18:36	. . .
			—2.6	19.5	—1.1	. . .
S	Tu	3	0:40	7:04	13:08	19:24
			19.9	—1.9	18.7	—0.3
	W	4	1:26	7:52	13:54	20:12
			19.0	—1.0	17.9	0.6
	Th	5	2:14	8:41	14:43	21:05
			18.0	—0.1	17.2	1.5
	F	6	3:05	9:33	15:36	21:58
			17.1	0.7	16.5	2.1
☾	S	7	3:58	10:27	16:29	22:55
			16.4	1.3	16.0	2.4
A	S	8	4:54	11:20	17:25	23:50
			15.9	1.6	16.0	2.3
	M	9	5:48	12:15	18:18	. . .
			15.8	1.7	16.2	. . .
	Tu	10	0:43	6:42	13:06	19:10
			1.9	16.0	1.4	16.7
E	W	11	1:34	7:32	13:54	19:58
			1.4	16.5	1.0	17.3
	Th	12	2:22	8:20	14:40	20:42
			0.6	17.1	0.5	18.0
	F	13	3:05	9:05	15:22	21:25
			—0.1	17.8	0.1	18.7
	S	14	3:48	9:48	16:05	22:07
			—0.7	18.3	0.2	19.2
●	S	15	4:30	10:30	16:45	22:50
			—1.3	18.7	—0.4	19.6
	M	16	5:13	11:12	17:28	23:31
			—1.6	19.0	—0.5	19.8
N	Tu	17	5:56	11:57	18:11	. . .
			—1.8	19.0	—0.4	. . .
	W	18	0:16	6:40	12:44	18:57
			19.7	—1.7	18.9	0.0
	Th	19	1:02	7:30	13:32	19:47
			19.5	—1.4	18.6	0.3
	F	20	1:55	8:22	14:26	20:43
			19.0	—1.0	18.3	0.6
	S	21	2:48	9:18	15:23	21:44
			18.5	—0.6	18.1	0.7
☽	S	22	3:47	10:17	16:22	22:47
P			18.1	—0.3	18.0	0.6
	M	23	4:50	11:18	17:25	23:50
			17.9	—0.2	18.1	0.3
E	Tu	24	5:54	12:19	18:26	. . .
			18.0	—0.4	18.4	. . .
	W	25	0:52	6:55	13:18	19:25
			—0.4	18.3	—0.7	19.0
	Th	26	1:50	7:55	14:15	20:20
			—1.1	18.7	—1.1	19.6
	F	27	2:45	8:50	15:06	21:12
			—1.8	19.1	—1.5	20.0
	S	28	3:36	9:42	15:57	22:02
			—2.3	19.3	—1.5	20.2
○	S	29	4:26	10:30	16:43	22:48
			—2.5	19.3	—1.4	20.2
S	M	30	5:12	11:16	17:30	23:34
			—2.4	19.1	—1.0	19.8
	Tu	31	5:56	12:00	18:14	. . .
			—2.0	18.7	—0.5	. . .

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	0:18	6:40	12:44	19:00
			19.2	—1.4	18.2	0.2
	Th	2	1:00	7:25	13:27	19:43
			18.5	—0.6	17.6	1.0
	F	3	1:44	8:10	14:12	20:32
			17.8	0.1	17.1	1.6
	S	4	2:30	8:58	14:59	21:20
			17.0	0.8	16.6	2.1
A	S	5	3:12	9:46	15:48	22:12
			16.4	1.4	16.4	2.3
☾	M	6	4:08	10:36	16:39	23:04
			16.0	1.7	16.3	2.3
E	Tu	7	5:00	11:28	17:32	23:57
			15.8	1.8	16.4	2.0
	W	8	5:55	12:18	18:23	. . .
			16.0	1.7	16.8	. . .
	Th	9	0:50	6:46	13:10	19:15
			1.5	16.4	1.3	17.4
	F	10	1:42	7:38	14:00	20:05
			1.3	17.0	0.7	18.1
	S	11	2:30	8:30	14:48	20:52
			—0.1	17.6	—0.3	18.9
	S	12	3:17	9:18	15:35	21:40
			—0.1	18.3	—0.3	19.6
●	M	13	4:05	10:05	16:20	22:26
			—1.7	18.9	—0.7	20.2
N	Tu	14	4:50	10:53	17:07	23:12
			—2.2	19.4	—1.0	20.4
	W	15	5:37	11:40	17:54	23:59
			—2.5	19.6	—1.0	20.4
	Th	16	6:26	12:28	18:42	. . .
			—2.5	19.6	—0.9	. . .
P	F	17	0:47	7:15	13:18	19:34
			20.2	—2.2	19.5	—10.7
	S	18	1:38	8:05	14:10	20:27
			19.8	—1.8	19.2	—0.5
	S	19	2:32	9:00	15:05	21:26
			19.3	—1.3	18.9	—0.2
☽	M	20	3:30	9:56	16:03	22:27
E			18.7	—0.8	18.7	—0.1
	Tu	21	4:30	10:55	17:03	23:28
			18.2	—0.4	18.5	0.0
	W	22	5:32	11:56	18:03	. . .
			18.0	—0.2	18.5	. . .
	Th	23	0:28	6:34	12:54	19:02
			—0.4	17.8	—0.3	18.7
	F	24	1:28	7:34	13:54	20:00
			—0.7	17.9	—0.3	19.0
	S	25	2:26	8:32	14:43	20:53
			—0.9	18.0	—0.5	19.2
	S	26	3:18	9:24	15:38	21:43
			—1.5	18.1	—0.6	19.4
S	M	27	4:08	10:12	16:26	22:30
○			—1.7	18.2	—0.5	19.4
	Tu	28	4:53	10:57	17:10	23:13
			—1.6	18.2	—0.3	19.1
	W	29	5:37	11:40	17:54	23:55
			—1.4	18.0	—0.0	18.6
	Th	30	6:18	12:20	18:35	. . .
			—0.9	17.8	0.5	. . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 9.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (–) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo	Time and Height of High and Low Water.				
	F	1	0:35	6:58	13:00	19:16	
			18.2	—0.3	17.5	1.0	
	S	2	1:15	7:40	13:40	19:57	
			17.5	0.3	17.2	1.5	
A	S	3	1:55	8:20	14:22	20:40	
			17.0	0.9	17.0	1.8	
E	M	4	2:38	9:04	15:05	21:27	
			16.6	1.4	16.8	2.0	
☾	Tu	5	3:23	9:50	15:53	22:16	
			16.3	1.6	16.6	2.0	
	W	6	4:12	10:39	16:44	23:10	
			16.1	1.9	16.7	1.8	
	Th	7	5:06	11:32	17:38	. . .	
			16.1	1.9	16.9	. . .	
	F	8	0:05	6:04	12:27	18:34	
			1.4	16.4	1.6	17.4	
	S	9	1:03	7:01	13:23	19:28	
			0.7	16.9	1.1	18.2	
	S	10	1:57	7:57	14:16	20:21	
			—0.2	17.6	0.4	19.0	
N	M	11	2:48	8:50	15:08	21:14	
			—1.1	18.4	—0.4	19.8	
	Tu	12	3:40	9:42	16:00	22:14	
			—2.0	19.1	—1.0	20.5	
●	W	13	4:30	10:32	16:47	22:54	
			—2.6	19.8	—1.5	20.9	
P	Th	14	5:17	11:22	17:37	23:42	
			—3.0	20.2	—1.9	21.1	
	F	15	6:06	12:10	18:25	. . .	
			—3.1	20.4	—2.0	. . .	
	S	16	0:32	6:55	13:00	19:16	
			21.0	—3.0	20.4	—1.8	
E	S	17	1:23	7:46	13:50	20:10	
			20.5	—2.5	20.1	—1.5	
	M	18	2:14	8:38	14:42	21:05	
			19.9	—1.8	19.7	—1.1	
☽	Tu	19	3:08	9:33	15:38	22:04	
			19.2	—1.2	19.2	—0.6	
	W	20	4:06	10:30	16:37	23:05	
			18.5	—0.5	18.1	—0.4	
	Th	21	5:08	11:31	17:38	. . .	
			17.8	0.1	18.3	. . .	
	F	22	0:08	6:10	12:32	18:39	
			—0.2	17.3	0.3	18.2	
	S	23	1:08	7:12	13:32	19:38	
			—0.2	17.1	0.4	18.3	
S	S	24	2:06	8:12	14:27	20:33	
			—0.5	17.1	0.2	18.5	
	M	25	3:00	9:05	15:20	21:25	
			—0.7	17.4	0.1	18.6	
	Tu	26	3:48	9:54	16:08	22:12	
			—0.9	17.6	0.0	18.6	
○	W	27	4:33	10:38	16:52	22:54	
			—1.0	17.7	0.0	18.5	
	Th	28	5:15	11:17	17:32	23:32	
			—0.8	17.8	0.2	18.3	
	F	29	5:59	11:54	18:10	. . .	
			—0.5	17.7	0.6	. . .	
A	S	30	0:08	6:30	12:30	18:46	
			18.0	0.0	17.6	0.9	
	S	31	0:45	7:07	13:07	19:24	
			17.5	0.4	17.5	1.1	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	1:22	7:44	13:44	20:02	
			17.2	0.8	17.4	1.3	
	Tu	2	2:00	8:23	14:25	20:42	
			17.0	1.3	17.2	1.5	
	W	3	2:43	9:07	15:10	21:28	
			16.8	1.6	17.0	1.5	
☾	Th	4	3:32	9:54	16:01	22:28	
			16.6	1.9	17.0	1.5	
	F	5	4:26	10:49	16:56	23:26	
			16.5	2.0	17.0	1.3	
	S	6	5:25	11:48	17:55	. . .	
			16.5	1.8	17.4	. . .	
	S	7	0:25	6:26	12:48	18:56	
			0.7	16.8	1.3	18.1	
N	M	8	1:25	7:27	13:47	19:53	
			—0.1	17.7	0.5	19.0	
	Tu	9	2:24	8:27	14:44	20:50	
			—1.1	18.5	—0.5	19.8	
	W	10	3:17	9:20	15:38	21:44	
			—2.0	19.4	—1.5	20.6	
●	Th	11	4:06	10:22	16:28	22:35	
			—2.8	20.3	—2.3	21.3	
P	F	12	4:57	11:00	17:18	23:24	
			—3.4	20.9	—2.8	21.5	
	S	13	5:46	11:50	18:06	. . .	
			—3.5	21.2	—3.0	. . .	
E	S	14	0:14	6:35	12:38	18:58	
			21.5	—3.4	21.2	—2.9	
	M	15	1:03	7:22	13:28	19:48	
			21.1	—2.9	20.9	—2.4	
	Tu	16	1:54	8:14	14:18	20:42	
			20.4	—2.1	20.2	—1.8	
☽	W	17	2:47	9:08	15:04	21:40	
			19.5	—1.2	19.4	—1.1	
	Th	18	3:44	10:06	16:12	22:40	
			18.5	—0.3	18.6	—0.4	
	F	19	4:43	11:06	17:12	23:44	
			17.5	0.5	18.0	0.1	
S	S	20	5:46	12:07	18:15	. . .	
			16.9	0.9	17.6	. . .	
	S	21	0:43	6:49	13:08	19:16	
			0.2	16.6	1.0	17.6	
	M	22	1:42	7:50	14:06	20:12	
			0.1	16.7	0.7	17.7	
	Tu	23	2:37	8:43	15:00	21:05	
			—0.1	17.0	0.5	17.9	
	W	24	3:26	9:30	15:47	21:50	
			—0.3	17.2	0.3	18.0	
○	Th	25	4:10	10:14	16:30	22:30	
			—0.4	17.5	0.2	18.0	
A	F	26	4:50	10:50	17:07	23:07	
			—0.4	17.7	0.2	18.0	
	S	27	5:26	11:25	17:44	23:42	
			—0.1	17.8	0.3	17.8	
E	S	28	6:01	12:00	18:17	. . .	
			0.1	17.9	0.5	. . .	
	M	29	0:15	6:35	12:34	18:52	
			17.7	0.5	17.8	0.6	
	Tu	30	0:50	7:10	13:10	19:30	
			17.6	0.8	17.7	0.7	
	W	31	1:28	7:47	13:50	20:12	
			17.4	1.1	17.6	0.9	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	2:10	8:28	14:35	21:00	
			17.2	1.5	17.5	1.0	
☾	F	2	3:00	9:17	15:25	21:53	
			17.0	1.8	17.3	1.1	
	S	3	3:54	10:13	16:22	22:52	
			16.7	2.0	17.2	1.0	
N	S	4	4:55	11:17	17:25	23:55	
			16.7	1.6	17.4	0.7	
	M	5	5:57	12:20	18:27	. . .	
			16.9	0.8	17.9	. . .	
	Tu	6	0:58	7:00	13:23	19:30	
			0.0	17.6	0.0	18.7	
	W	7	1:57	8:00	14:22	20:27	
			—1.0	18.6	—0.7	19.7	
	Th	8	2:53	8:53	15:17	21:23	
			—2.0	19.7	—1.8	20.6	
P	F	9	3:45	9:50	16:08	22:15	
●			—2.8	20.7	—2.8	21.3	
E	S	10	4:35	10:40	16:58	23:05	
			—3.5	21.3	—3.4	21.6	
	S	11	5:24	11:28	17:47	23:52	
			—3.6	21.7	—3.6	21.7	
	M	12	6:12	12:16	18:32	. . .	
			—3.5	21.6	—3.5	. . .	
	Tu	13	0:42	7:00	13:05	19:27	
			21.2	—2.9	21.1	—2.9	
	W	14	1:32	7:50	13:55	20:19	
			20.5	—2.0	20.3	—2.1	
	Th	15	2:24	8:42	14:48	21:15	
			19.4	—1.0	19.4	—1.1	
☽	F	16	3:18	9:38	15:45	22:13	
			18.2	—0.1	18.4	—0.3	
S	S	17	4:17	10:40	16:45	23:14	
			17.3	0.9	17.6	0.3	
	S	18	5:19	11:41	17:47	. . .	
			16.6	1.3	17.1	. . .	
	M	19	0:15	6:18	12:44	18:48	
			0.6	16.3	1.4	17.0	
	Tu	20	1:14	7:21	13:42	19:45	
			0.7	16.4	1.2	17.1	
	W	21	2:08	8:14	14:33	20:37	
			0.5	16.8	0.8	17.3	
	Th	22	2:56	9:02	15:18	21:22	
			0.3	17.2	0.5	17.5	
A	F	23	3:41	9:43	16:00	22:02	
			0.0	17.5	0.2	17.8	
○	S	24	4:20	10:20	16:39	22:37	
E			0.0	17.9	0.0	17.9	
	S	25	4:55	10:55	17:14	23:12	
			0.0	18.0	0.0	17.9	
	M	26	5:30	11:28	17:48	23:48	
			0.2	18.2	—0.1	17.9	
	Tu	27	6:02	12:03	18:25	. . .	
			0.5	18.2	0.0	. . .	
	W	28	0:22	6:38	12:40	19:02	
			17.9	0.7	18.1	0.0	
	Th	29	1:02	7:15	13:20	19:44	
			17.8	1.0	18.0	0.2	
	F	30	1:45	7:59	14:06	20:32	
			17.5	1.4	17.8	0.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 9.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon, ☽, 1st quar.; ○, full moon; ☾, 3rd quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	2:34 17.3	8:48 1.7	14:58 17.5	21:27 0.7
☾	S	2	3:28 17.0	9:46 1.9	15:55 17.4	22:25 0.7
	M	3	4:30 17.0	10:50 1.8	16:57 17.4	23:30 0.5
	Tu	4	5:33 17.2	11:56 1.2	18:04 17.8	. . . . . .
	W	5	0:32 0.0	6:37 17.8	12:59 0.3	19:06 18.5
	Th	6	1:33 −0.9	7:37 18.8	14:00 −0.8	20:06 19.4
	F	7	2:30 −1.8	8:34 19.8	14:56 −2.0	21:02 20.3
P E	S	8	3:22 −2.6	9:28 20.7	15:48 −3.0	21:54 21.0
●	S	9	4:12 −3.1	10:17 21.4	16:37 −3.6	22:44 21.4
	M	10	5:01 −3.3	11:05 21.6	17:27 −3.8	23:32 21.2
	Tu	11	5:48 −3.1	11:52 21.5	18:15 −3.6	. . . . . .
	W	12	0:20 20.8	6:37 −2.4	12:42 21.0	19:05 −3.0
	Th	13	1:09 20.0	7:26 −1.6	13:30 20.2	19:55 −2.1
S	F	14	2:00 19.0	8:17 −0.5	14:22 19.1	20:48 −1.1
	S	15	2:52 18.0	9:12 −0.5	15:16 18.1	21:45 −0.2
☽	S	16	3:48 17.1	10:10 1.1	16:14 17.2	22:42 0.5
	M	17	4:47 16.5	11:11 1.6	17:14 16.7	23:42 1.0
	Tu	18	5:48 16.3	12:12 1.7	18:13 16.5	. . . . . .
	W	19	0:38 1.1	6:45 16.3	13:07 1.6	19:10 16.5
A	Th	20	1:32 1.0	7:38 16.6	14:00 1.2	20:00 16.7
E	F	21	2:20 0.7	8:24 17.1	14:45 1.3	20:46 17.1
	S	22	3:04 0.5	9:06 17.6	15:26 0.2	21:27 17.4
	S	23	3:44 0.3	9:45 18.0	16:05 −0.2	22:05 17.7
○	M	24	4:23 0.2	10:22 18.3	16:43 −0.5	22:42 17.9
	Tu	25	4:58 0.2	11:00 18.6	17:21 −0.6	23:20 18.1
	W	26	5:34 0.3	11:36 18.7	18:00 −0.7	23:59 18.2
	Th	27	6:12 0.5	12:15 18.7	18:39 −0.6	. . . . . .
	F	28	0:40 18.1	6:53 0.7	12:58 18.6	19:23 −0.5
N	S	29	1:25 17.9	7:38 1.0	13:45 18.3	20:13 −0.1
	S	30	2:15 17.7	8:30 1.4	14:37 17.9	21:05 0.1
☾	M	31	3:10 17.5	9:25 1.4	15:34 17.7	22:05 0.3

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	4:10 17.4	10:32 1.4	16:36 17.5	23:06 0.3
	W	2	5:12 17.6	11:35 0.9	17:40 17.8	. . . . . .
	Th	3	0:08 −0.1	6:15 18.1	12:40 0.1	18:42 18.2
E	F	4	1:08 −0.7	7:15 18.8	13:38 −0.9	19:44 19.0
P	S	5	2:05 −1.4	8:12 19.7	14:35 −1.9	20:40 19.8
	S	6	3:00 −2.1	9:05 20.5	15:28 −2.8	21:34 20.3
●	M	7	3:50 −2.5	9:55 21.0	16:12 −3.3	22:23 20.5
	Tu	8	4:40 −2.5	10:44 21.2	17:08 −3.4	23:12 20.5
	W	9	5:28 −2.3	11:32 21.1	17:55 −3.2	. . . . . .
S	Th	10	0:00 20.0	6:15 −1.8	12:18 20.5	18:44 −2.6
	F	11	0:47 19.4	7:03 −1.0	13:06 19.8	19:32 −1.8
	S	12	1:36 18.6	7:52 −0.1	13:56 18.8	20:22 −0.9
	S	13	2:25 17.8	8:43 0.7	14:47 17.9	21:14 0.0
☽	M	14	3:17 17.1	9:39 1.4	15:40 17.0	22:07 0.7
	Tu	15	4:12 16.6	10:35 1.8	16:35 16.4	23:02 1.2
	W	16	5:07 16.3	11.32 2.0	17:30 16.0	23:56 1.5
A	Th	17	6:02 16.3	12:27 1.9	18:26 16.0	. . . . . .
E	F	18	0:50 1.5	6:54 16.6	13:18 1.5	19:17 16.3
	S	19	1:38 1.2	7:41 17.1	14:06 0.9	20:05 16.7
	S	20	2:25 0.9	8:27 17.6	14:50 0.3	20:50 17.1
	M	21	3:08 0.6	9:10 18.1	15:32 −0.3	21:32 17.6
○	Tu	22	3:49 0.4	9:51 18.6	16:09 −0.8	22:14 18.0
	W	23	4:30 0.2	10:32 19.0	16:55 −1.1	22:55 18.4
	Th	24	5:10 0.1	11:12 19.3	17:38 −1.4	23:37 18.6
N	F	25	5:51 0.0	11:55 19.3	18:20 −1.4	. . . . . .
	S	26	0:22 18.6	6:35 0.2	12:40 19.2	19:06 −1.2
	S	27	1:08 18.5	7:22 0.4	13:28 18.9	19:55 −0.9
	M	28	1:59 18.3	8:15 0.6	14:20 18.5	20:48 −0.6
	Tu	29	2:52 18.1	9:11 0.7	15:16 18.1	21:45 −0.3
☾	W	30	3:50 18.0	10:12 0.7	16:16 17.9	22:44 −0.1

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	4:50 18.1	11:14 0.5	17:18 17.9	23:45 −0.1
P	F	2	5:51 18.3	12:16 0.0	18:21 18.0	. . . . . .
	S	3	0:44 −0.5	6:52 18.8	13:17 −0.8	19:22 18.5
	S	4	1:42 −0.9	7:49 19.4	14:05 −1.5	20:20 18.9
	M	5	2:37 −1.3	8:44 20.0	15:08 −2.2	21:15 19.3
●	Tu	6	3:30 −1.6	9:36 20.4	16:00 −2.6	22:05 19.5
	W	7	4:20 −1.6	10:25 20.5	16:49 −2.8	22:54 19.4
S	Th	8	5:08 −1.5	11:12 20.4	17:36 −2.5	23:42 19.2
	F	9	5:55 −1.1	11:59 20.0	18:22 −2.1	. . . . . .
	S	10	0:25 18.8	6:42 −0.5	12:44 19.2	19:08 −1.4
	S	11	1:10 18.2	7:27 0.1	13:28 18.5	19:54 −0.6
	M	12	1:57 17.7	8:14 0.8	14:15 17.7	20:46 0.2
	Tu	13	2:44 17.2	9:04 1.5	15:03 16.9	21:30 0.9
☽ A	W	14	3:32 16.8	9:55 1.9	15:52 16.3	22:18 1.4
E	Th	15	4:22 16.5	10:46 2.1	16:43 16.0	23:10 1.7
	F	16	5:09 16.4	11:40 2.0	17:37 15.9	. . . . . .
	S	17	0:02 1.8	6:05 16.5	12:32 1.7	18:30 16.0
	S	18	0:52 1.7	6:57 17.0	13:23 1.1	19:21 16.4
	M	19	1:42 1.4	7:46 17.5	14:12 0.4	20:12 17.0
	Tu	20	2:30 0.9	8:34 18.2	15:00 −0.4	21:00 17.6
	W	21	3:17 0.4	9:22 18.9	15:47 −1.0	21:46 18.2
○ N	Th	22	4:02 0.0	10:05 19.5	16:31 −1.6	22:32 18.8
	F	23	4:47 −0.4	10:50 19.9	17:16 −2.0	23:18 19.1
	S	24	5:32 −0.6	11:37 20.0	18:02 −2.1	. . . . . .
	S	25	0:05 19.4	6:20 −0.7	12:24 20.0	18:49 −2.1
	M	26	0:52 19.4	7:08 −0.6	13:12 19.8	19:38 −1.8
P	Tu	27	1:42 19.3	8:00 −0.5	14:03 19.3	20:30 −1.4
	W	28	2:33 19.0	8:53 −0.3	14:57 18.8	21:24 −0.9
E ☾	Th	29	3:29 18.8	9:52 −0.1	15:56 18.4	22:22 −0.5
	F	30	4:28 18.6	10:53 −0.1	16:57 18.0	23:21 −0.2
	S	31	5:28 18.5	11:55 −0.2	18:00 7.8	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 9.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case substract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3rd quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
JANUARY.						
	F	1	2:32	8:45	15:12	21:22
			—0.2	10.0	—1.6	9.2
N	S	2	3:23	9:37	16:02	22:24
			—0.4	10.3	—2.0	9.6
○	S	3	4:14	10:27	16:50	23:04
			—0.6	10.6	—2.3	9.9
P	M	4	5:04	11:12	17:40	23:54
			—0.9	10.7	—2.4	10.0
	Tu	5	5:55	12:08	18:30	. . .
			—1.0	10.7	—2.3	. . .
	W	6	0:44	6:50	13:00	19:22
			10.1	—1.0	10.4	—2.0
	Th	7	1:35	7:43	13:53	20:15
			10.0	—0.9	10.1	—1.7
E	F	8	2:28	8:38	14:50	21:08
			9.8	—0.8	9.6	—1.1
☾	S	9	3:24	9:38	15:49	22:05
			9.6	—0.5	9.2	—0.6
	S	10	4:22	10:40	16:52	23:06
			9.3	—0.3	8.8	—0.1
	M	11	5:22	11:45	18:00	. . .
			9.1	—0.1	8.8	. . .
	Tu	12	0:08	6:23	12:50	19:09
			0.8	8.9	—0.1	8.1
	W	13	1:12	7:28	13:50	20:13
			0.5	8.9	—0.1	8.0
	Th	14	2:00	8:20	14:47	21:10
			0.6	9.0	—0.3	8.1
S	F	15	3:05	9:11	15:37	22:00
			0.6	9.1	—0.4	8.1
	S	16	3:55	9:58	16:20	22:43
			0.6	9.1	—0.5	8.2
●	S	17	4:37	10:40	17:02	23:20
			0.7	9.0	—0.5	8.2
	M	18	5:17	11:20	17:38	23:55
			0.8	8.8	—0.4	8.2
A	Tu	19	5:52	11:58	18:14	. . .
			0.8	8.7	—0.3	. . .
	W	20	0:27	6:27	12:32	18:50
			8.2	0.7	8.5	—0.2
	Th	21	1:00	7:00	13:06	19:25
			8.3	0.7	8.4	—0.1
E	F	22	1:34	7:38	13:43	20:00
			8.5	0.6	8.3	0.0
	S	23	2:14	8:20	14:24	20:40
			8.6	0.5	8.3	0.2
	S	24	2:54	9:06	15:10	21:24
			8.6	0.3	8.3	0.3
☽	M	25	3:40	9:57	16:02	22:14
			8.7	0.2	8.2	0.4
	Tu	26	4:30	10:53	17:00	23:06
			8.7	0.1	8.2	0.5
	W	27	5:26	11:52	18:00	. . .
			8.9	—0.2	8.2	. . .
	Th	28	0:05	6:23	12:52	19:00
			0.5	9.2	—0.5	8.4
N	F	29	1:05	7:22	13:51	20:02
			0.3	9.5	—1.0	8.8
	S	30	2:05	8:20	14:47	21:00
			0.0	9.9	—1.5	9.2
	S	31	3:02	9:16	15:40	21:55
			—0.4	10.3	—1.9	9.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
FEBRUARY.						
○ P	M	1	3:57	10:10	16:21	22:46
			—0.8	10.7	—2.2	10.0
	Tu	2	4:48	11:00	17:22	23:35
			—1.2	10.8	—2.4	10.3
	W	3	5:40	11:52	18:11	. . .
			—1.4	10.8	—2.3	. . .
E	Th	4	0:25	6:32	12:43	19:02
			10.4	—1.5	10.6	—2.1
	F	5	1:14	7:25	13:37	19:52
			10.8	—1.4	10.3	—1.6
	S	6	2:05	8:18	14:30	20:44
			10.1	—1.2	9.8	—1.0
	S	7	2:55	9:15	15:28	21:40
			9.8	—0.8	9.2	—0.4
☾	M	8	3:54	10:15	16:30	22:38
			9.3	—0.4	8.5	0.2
	Tu	9	4:54	11:18	17:38	23:41
			8.9	—0.1	8.0	0.7
	W	10	5:57	12:22	18:47	. . .
			8.7	0.1	7.8	. . .
S	Th	11	0:47	6:58	13:25	19:52
			0.9	8.6	0.2	7.7
	F	12	1:48	7:58	14:24	20:51
			1.0	8.6	0.1	7.8
	S	13	2:47	8:50	15:14	21:40
			0.9	8.7	—0.1	8.0
	S	14	3:35	9:40	15:58	22:20
			0.8	8.7	—0.2	8.1
A	M	15	4:18	10:20	16:37	22:58
			0.7	8.7	—0.2	8.2
●	Tu	16	4:55	10:57	17:12	23:25
			0.6	8.7	—0.3	8.4
	W	17	5:27	11:30	17:45	23:56
			0.5	8.7	—0.2	8.5
	Th	18	6:00	12:05	18:17	. . .
			0.4	8.7	—0.2	. . .
E	F	19	0:25	6:30	12:38	18:48
			8.7	0.2	8.7	—0.2
	S	20	0:48	7:07	13:13	19:23
			8.8	0.0	8.8	—0.1
	S	21	1:35	7:48	13:53	20:01
			9.0	—0.1	8.7	0.0
	M	22	2:15	8:33	14:38	20:47
			9.0	—0.2	8.6	0.2
	Tu	23	3:02	9:24	15:30	21:37
			8.9	—0.2	8.5	0.3
☽	W	24	3:54	10:20	16:27	22:32
			8.9	—0.2	8.4	0.5
	Th	25	4:51	11:20	17:30	23:34
			8.9	—0.3	8.3	0.6
N	F	26	5:53	12:22	18:35	. . .
			9.0	—0.5	8.4	. . .
	S	27	0:40	6:57	13:25	19:38
			0.3	9.3	—0.7	8.9
	S	28	1:45	7:57	14:24	20:38
			0.0	9.7	—1.3	9.2
	M	29	2:45	8:56	15:18	21:35
			—0.4	10.1	—1.7	9.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
MARCH.						
P ○	Tu	1	3:40	9:52	16:12	22:25
			—1.0	10.5	—2.0	10.2
	W	2	4:32	10:47	17:02	23:15
			—1.5	10.7	—2.2	10.5
E	Th	3	5:24	11:36	17:51	. . .
			—1.8	10.8	—2.1	. . .
	F	4	0:03	6:15	12:27	18:40
			10.6	—1.9	10.6	—1.8
	S	5	0:50	7:05	13:17	19:28
			10.5	—1.7	10.2	—1.4
	S	6	1:40	7:57	14:08	20:18
			10.2	—1.4	9.6	—0.8
	M	7	2:30	8:52	15:05	21:12
			9.7	—0.9	8.9	—0.1
☾	Tu	8	3:25	9:50	16:45	22:10
			9.2	—0.4	8.3	0.6
S	W	9	4:22	10:50	17:10	23:14
			8.7	0.0	7.8	1.0
	Th	10	5:25	11:52	18:17	. . .
			8.4	0.3	7.6	. . .
	F	11	0:18	6:28	12:56	19:23
			1.2	8.2	0.4	7.6
	S	12	1:24	7:30	13:52	20:20
			1.2	8.2	0.3	7.8
	S	13	2:20	8:25	14:44	21:06
			1.1	8.3	0.2	8.0
A	M	14	3:08	9:14	15:27	21:46
			0.8	8.4	0.1	8.2
	Tu	15	3:50	9:55	16:06	22:20
			0.6	8.5	0.0	8.4
	W	16	4:25	10:30	16:40	22:50
			0.4	8.6	—0.1	8.7
● E	Th	17	4:57	11:03	17:10	23:20
			0.1	8.8	—0.2	8.9
	F	18	5:30	11:36	17:42	23:52
			—0.2	8.9	—0.2	9.1
	S	19	6:04	12:11	18:17	. . .
			—0.4	9.0	—0.2	. . .
	S	20	0:25	6:40	12:47	18:53
			9.2	—0.6	9.0	—0.2
	M	21	1:05	7:22	13:28	19:33
			9.3	—0.7	9.0	—0.1
	Tu	22	1:45	8:07	14:15	20:17
			9.2	—0.7	8.9	0.1
	W	23	2:34	9:00	15:05	21:10
			9.1	—0.6	8.7	0.3
N ☽	Th	24	3:26	9:55	16:05	22:08
			9.0	—0.5	8.5	0.5
	F	25	4:25	10:55	17:07	23:12
			8.9	—0.5	8.4	0.5
	S	26	5:28	11:59	18:13	. . .
			8.9	—0.5	8.5	. . .
	S	27	0:20	6:35	13:02	19:17
			0.4	9.1	—0.7	8.8
	M	28	1:26	7:38	14:02	20:17
			0.0	9.4	—1.0	9.3
P	Tu	29	2:27	8:39	14:55	21:10
			—0.6	9.8	—1.3	9.9
E	W	30	3:22	9:35	15:50	22:03
			—1.1	10.2	—1.6	10.3
○	Th	31	4:16	10:28	16:40	22:52
			—1.6	10.4	—1.7	10.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator: N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	5:06	11:20	17:28	23:38
			—1.9	10.5	—1.6	10.5
	S	2	5:55	12:08	18:15	. . .
			—2.0	10.2	—1.3	. . .
	S	3	0:25	6:45	12:58	19:03
			10.4	—1.8	9.8	—0.9
	M	4	1:12	7:34	13:48	19:52
			10.0	—1.4	9.3	—0.3
	Tu	5	2:03	8:25	14:42	20:45
			9.5	—0.9	8.7	0.3
S	W	6	2:54	9:20	15:37	21:41
			9.0	—0.4	8.1	0.8
☾	Th	7	3:50	10:17	16:38	22:42
			8.5	0.0	7.8	1.2
	F	8	4:52	11:17	17:42	23:47
			8.1	0.4	7.6	1.4
	S	9	5:55	12:16	18:43	. . .
			7.8	0.6	7.6	. . .
A	S	10	0:48	6:55	13:13	19:36
			1.3	7.8	0.6	7.8
	M	11	1:42	7:48	14:03	20:22
			1.1	7.9	0.5	8.0
	Tu	12	2:30	8:37	14:49	21:00
			0.8	8.1	0.3	8.4
E	W	13	3:12	9:17	15:25	21:38
			0.4	8.3	0.2	8.7
	Th	14	3:50	9:55	16:02	22:12
			0.1	8.6	0.1	8.8
●	F	15	4:25	10:32	16:37	22:45
			—0.3	8.8	—0.1	9.2
	S	16	5:00	11:08	17:10	23:20
			—0.7	9.0	—0.2	9.4
	S	17	5:38	11:45	17:46	23:48
			—1.0	9.1	—0.3	9.5
	M	18	6:17	12:25	18:26	. . .
			—1.0	9.2	—0.3	. . .
	Tu	19	0:38	7:00	13:10	19:10
			9.6	—1.2	9.2	—0.1
N	W	20	1:12	7:47	13:57	19:58
			9.6	—1.1	9.1	0.0
	Th	21	2:12	8:38	14:50	20:50
			9.3	—0.9	8.9	0.2
☽	F	22	3:05	9:35	15:47	21:52
			9.1	—0.7	8.8	0.4
	S	23	4:05	10:35	16:50	22:57
			8.9	—0.5	8.6	0.4
	S	24	5:08	11:37	17:54	. . .
			8.8	—0.5	8.7	. . .
	M	25	0:05	6:16	12:40	18:57
			0.2	8.9	—0.5	9.0
P	Tu	26	1:10	7:20	13:40	19:55
			—0.2	9.1	—0.7	9.4
E	W	27	2:10	8:22	14:37	20:48
			—0.7	9.5	—0.9	9.8
	Th	28	3:05	9:18	15:27	21:40
			—1.2	9.7	—1.0	10.1
○	F	29	3:57	10:10	16:18	22:28
			—1.6	9.9	—1.0	10.3
	S	30	4:47	11:02	17:07	23:15
			—1.7	9.8	—0.9	10.3

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	5:35	11:50	17:53	. . .
			—1.8	9.6	—0.6	. . .
	M	2	0:02	6:23	12:40	18:40
			10.1	—1.6	9.3	—0.3
S	Tu	3	0:48	7:11	13:27	19:28
			9.7	—1.3	8.8	—0.2
	W	4	1:36	8:00	14:17	20:17
			9.2	—0.8	8.4	0.7
	Th	5	2:26	8:52	15:10	21:12
			8.7	—0.3	8.0	1.0
	F	6	3:18	9:44	16:06	22:08
			8.2	0.1	7.8	1.3
☾	S	7	4:18	10:38	17:00	23:08
			7.9	0.4	7.7	1.4
A	S	8	5:12	11:32	17:55	. . .
			7.6	0.7	7.7	. . .
	M	9	0:05	6:08	12:25	18:45
			1.3	7.5	0.7	7.9
	Tu	10	0:56	7:00	13:14	19:28
			1.1	7.6	0.7	8.2
E	W	11	1:45	7:50	14:00	20:12
			0.7	7.9	0.5	8.5
	Th	12	2:28	8:35	14:42	20:52
			0.3	8.2	0.4	8.8
	F	13	3:10	9:18	15:22	21:32
			—0.2	8.5	0.1	9.2
	S	14	3:50	10:00	16:00	22:12
			—0.7	8.8	0.0	9.5
●	S	15	4:32	10:40	16:40	22:52
			—1.1	9.1	—0.2	9.8
	M	16	5:19	11:23	17:20	23:33
			—1.4	9.3	—0.3	9.9
N	Tu	17	5:57	12:05	18:05	. . .
			—1.6	9.4	—0.3	. . .
	W	18	0:17	6:42	12:52	18:50
			9.9	—1.6	9.4	—0.3
	Th	19	1:05	7:31	13:43	19:42
			9.8	—1.5	9.3	—0.1
	F	20	1:55	8:22	14:35	20:37
			9.6	—1.3	9.1	0.0
	S	21	2:52	9:18	15:32	21:38
			9.3	—1.0	9.0	0.1
☽ P	S	22	3:50	10:15	16:32	22:43
			9.0	—0.7	8.9	0.2
	M	23	4:54	11:15	17:33	23:49
			8.8	—0.5	9.0	0.0
E	Tu	24	6:00	12:18	18:34	. . .
			8.8	—0.3	9.2	. . .
	W	25	0:52	7:04	13:17	19:32
			—0.3	8.9	—0.3	9.4
	Th	26	1:52	8:05	14:14	20:26
			—0.7	9.0	—0.4	9.7
	F	27	2:47	9:02	15:08	21:18
			—1.0	9.1	—0.4	9.9
	S	28	3:40	9:57	15:58	22:08
			—1.3	9.1	—0.3	10.0
○	S	29	4:30	10:48	16:47	22:55
			—1.4	9.1	—0.2	9.9
S	M	30	5:17	11:35	17:34	23:40
			—1.4	8.9	0.0	9.7
	Tu	31	6:04	12:22	18:18	. . .
			—1.3	8.7	0.3	. . .

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	0:26	6:50	13:06	19:05
			9.4	—1.0	8.5	0.5
	Th	2	1:10	7:34	13:52	19:50
			9.0	—0.6	8.2	0.8
	F	3	1:57	8:20	14:37	20:40
			8.5	—0.3	8.0	1.1
	S	4	2:45	9:07	15:24	21:30
			8.1	0.1	7.9	1.3
A	S	5	3:33	9:50	16:12	22:22
			7.8	0.5	7.9	1.3
☾	M	6	4:25	10:43	17:01	23:15
			7.6	0.7	7.9	1.2
E	Tu	7	5:17	11:32	17:50	. . .
			7.5	0.8	8.1	. . .
	W	8	0:06	6:10	12:21	18:36
			1.0	7.6	0.8	8.3
	Th	9	0:56	7:02	13:10	19:22
			0.6	7.8	0.6	8.7
	F	10	1:44	7:51	13:56	20:10
			0.1	8.1	0.5	9.0
	S	11	2:32	8:35	14:42	20:55
			—0.4	8.4	0.2	9.5
	S	12	3:17	9:27	15:28	21:40
			—1.0	8.8	0.0	9.8
●	M	13	4:04	10:14	16:12	22:26
			—1.4	9.2	—0.3	10.1
N	Tu	14	4:50	11:00	17:00	23:12
			—1.8	9.4	—0.5	10.2
	W	15	5:37	11:50	17:48	. . .
			—2.0	9.6	—0.6	. . .
	Th	16	0:00	6:25	12:38	18:39
			10.2	—2.0	9.6	—0.5
P	F	17	0:49	7:14	13:28	19:29
			10.1	—1.8	9.6	—0.5
	S	18	1:42	8:06	14:18	20:24
			9.9	—1.5	9.5	—0.4
	S	19	2:35	9:00	15:16	21:25
			9.5	—1.2	9.4	—0.3
☽ E	M	20	3:35	9:55	16:12	22:28
			9.2	—0.8	9.3	—0.2
	Tu	21	4:37	10:55	17:12	23:30
			8.9	—0.4	9.2	—0.2
	W	22	5:42	11:55	18:12	. . .
			8.7	—0.1	9.2	. . .
	Th	23	0:33	6:47	12:57	19:10
			—0.3	8.5	0.0	9.3
	F	24	1:33	7:50	13:55	20:06
			—0.5	8.5	0.1	9.4
	S	25	2:32	8:50	14:51	21:00
			—0.7	8.5	0.2	9.5
	S	26	3:25	9:46	15:42	21:51
			—0.9	8.5	0.2	9.6
S ○	M	27	4:15	10:35	16:31	22:38
			—1.0	8.5	0.3	9.5
	Tu	28	5:02	11:21	17:17	23:22
			—1.0	8.5	0.4	9.3
	W	29	5:45	12:04	18:00	. . .
			—1.8	8.4	0.5	. . .
	Th	30	0:05	6:27	12:44	18:42
			9.1	—0.7	8.3	0.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	0:47 8.8	7:07 —0.4	13:23 8.2	19:22 0.8
	S	2	1:28 8.5	7:48 —0.1	14:02 8.2	20:05 0.9
A	S	3	2:08 8.1	8:28 0.2	14:42 8.2	20:48 1.0
E	M	4	2:52 7.9	9:10 0.4	15:25 8.2	21:34 1.0
☾	Tu	5	3:37 7.8	9:54 0.6	16:10 8.2	22:24 0.8
	W	6	4:27 7.7	10:40 0.7	16:57 8.3	23:16 0.7
	Th	7	5:20 7.8	11:30 0.7	17:48 8.5	. . . . . .
	F	8	0:10 0.3	6:16 7.9	12:22 0.7	18:38 8.8
	S	9	1:03 —0.1	7:10 8.1	13:13 0.5	19:30 9.2
	S	10	1:56 —0.6	8:07 8.5	14:07 0.2	20:23 9.6
N	M	11	2:48 —1.1	9:00 8.8	15:00 —0.1	21:14 10.0
	Tu	12	3:40 —1.6	9:50 9.3	15:50 —0.4	22:04 10.3
●	W	13	4:28 —2.0	10:40 9.6	16:40 —0.7	22:53 10.5
P	Th	14	5:17 —2.2	11:30 9.9	17:32 —0.9	23:43 10.5
	F	15	6:07 —2.2	12:18 10.0	18:23 —1.0	. . . . . .
	S	16	0:35 10.4	6:55 —2.0	13:09 10.0	19:16 —1.0
E	S	17	1:26 10.2	7:46 —1.7	14:00 9.9	20:10 —0.9
	M	18	2:20 9.8	8:38 —1.3	14:53 9.8	21:07 —0.7
☽	Tu	19	3:18 9.4	9:35 —0.8	15:50 9.5	22:07 —0.5
	W	20	4:20 8.9	10:32 —0.3	16:47 9.3	23:10 —0.3
	Th	21	5:24 8.5	11:34 0.2	17:50 9.1	. . . . . .
	F	22	0:13 —0.2	6:31 8.2	12:38 0.4	18:50 9.0
	S	23	1:18 —0.2	7:38 8.1	13:38 0.6	19:50 9.1
S	S	24	2:17 —0.3	8:40 8.1	14:38 0.6	20:40 9.1
	M	25	3:10 —0.5	9:35 8.2	15:30 0.5	21:37 9.2
	Tu	26	4:00 —0.6	10:22 8.3	16:18 0.5	22:22 9.2
○	W	27	4:45 —0.6	11:05 8.3	17:00 0.5	23:04 9.0
	Th	28	5:24 —0.5	11:42 8.3	17:40 0.6	23:44 8.9
	F	29	6:02 —0.4	12:15 8.3	18:17 0.6	. . . . . .
A	S	30	0:20 8.6	6:37 —0.2	12:50 8.4	18:52 0.6
	S	31	0:59 8.4	7:12 0.0	13:24 8.4	19:30 0.6

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	1:34 8.3	7:48 0.1	14:00 8.4	20:08 0.5
	Tu	2	2:13 8.2	8:25 0.3	14:39 8.5	20:51 0.5
	W	3	2:56 8.1	9:07 0.5	15:23 8.5	21:40 0.4
☾	Th	4	3:43 8.0	9:53 0.6	16:10 8.5	22:32 0.3
	F	5	4:36 8.0	10:45 0.7	17:03 8.6	23:29 0.1
	S	6	5:35 8.0	11:40 0.7	17:59 8.8	. . . . . .
	S	7	0:27 —0.2	6:35 8.2	12:40 0.5	18:56 9.2
N	M	8	1:25 —0.7	7:35 8.5	13:38 0.2	19:53 9.6
	Tu	9	2:20 —1.1	8:33 8.9	14:36 —0.2	20:50 10.0
	W	10	3:14 —1.6	9:28 9.4	15:30 —0.7	21:44 10.4
●	Th	11	4:06 —2.0	10:18 9.9	16:22 —1.1	22:35 10.7
P	F	12	4:56 —2.2	11:10 10.2	17:15 —1.4	23:27 10.8
	S	13	5:45 —2.2	11:58 10.4	18:07 —1.5	. . . . . .
E	S	14	0:17 10.7	6:35 —2.1	12:47 10.4	18:57 —1.6
	M	15	1:10 10.4	7:24 —1.3	13:37 10.3	19:52 —1.4
	Tu	16	2:03 10.0	8:15 —1.2	14:28 10.0	20:46 —1.1
☽	W	17	2:58 9.4	9:10 —0.6	15:24 9.6	21:45 —0.7
	Th	18	4:00 8.8	10:08 0.0	16:22 9.2	22:47 —0.4
	F	19	5:05 8.3	11:10 0.5	17:25 8.9	23:52 —0.1
S	S	20	6:15 8.0	12:18 0.8	18:28 8.8	. . . . . .
	S	21	0:58 0.0	7:22 7.9	13:22 0.9	19:30 8.7
	M	22	1:57 0.0	8:23 8.0	14:22 0.8	20:27 8.8
	Tu	23	2:52 —0.1	9:16 8.1	15:15 0.7	21:18 8.8
	W	24	3:40 —0.2	10:02 8.3	16:00 0.6	22:05 8.8
○	Th	25	4:21 —0.3	10:40 8.4	16:42 0.5	22:44 8.8
A	F	26	4:59 —0.3	11:13 8.5	17:16 0.4	23:20 8.7
	S	27	5:32 —0.2	11:44 8.5	17:49 0.3	23:45 8.6
E	S	28	6:05 —0.1	12:14 8.6	18:21 0.2	. . . . . .
	M	29	0:27 8.6	6:36 0.0	12:45 8.7	18:55 0.1
	Tu	30	1:02 8.5	7:08 0.1	13:20 8.8	19:32 0.0
	W	31	1:40 8.5	7:45 0.3	13:58 8.7	20:17 0.0

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	2:20 8.4	8:27 0.4	14:42 8.7	21:05 0.0
	F	2	3:10 8.3	9:13 0.6	15:31 8.7	21:57 —0.1
☾	S	3	4:04 8.2	10:07 0.7	16:25 8.7	22:55 —0.1
N	S	4	5:04 8.2	11:07 0.7	17:27 8.8	23:56 —0.3
	M	5	6:07 8.3	12:09 0.6	18:28 9.0	. . . . . .
	Tu	6	0:57 —0.6	7:10 8.6	13:15 0.2	19:30 9.4
	W	7	1:55 —1.0	8:10 9.1	14:15 —0.3	20:28 9.9
	Th	8	2:51 —1.5	9:06 9.6	15:13 —0.9	21:25 10.3
P ●	F	9	3:45 —1.8	9:52 10.1	16:05 —1.4	22:17 10.6
E	S	10	4:34 —2.0	10:46 10.5	16:56 —1.8	23:08 10.7
	S	11	5:22 —2.1	11:34 10.7	17:47 —2.1	. . . . . .
	M	12	0:00 10.8	6:12 —1.9	12:24 10.7	18:37 —2.0
	Tu	13	0:50 10.4	7:00 —1.5	13:11 10.5	19:30 —1.7
	W	14	1:42 9.9	7:52 —1.0	14:02 10.0	20:24 —1.3
	Th	15	2:38 9.3	8:45 —0.3	14:57 9.5	21:22 —0.8
☽	F	16	3:35 8.6	9:46 0.3	16:01 8.9	22:12 —0.3
S	S	17	4:42 8.1	10:47 0.7	16:59 8.6	23:25 0.0
	S	18	5:52 7.8	11:55 1.0	18:04 8.4	. . . . . .
	M	19	0:30 0.2	7:00 7.8	13:00 1.0	19:08 8.3
	Tu	20	1:32 0.2	7:57 7.9	14:00 0.9	20:07 8.4
	W	21	2:25 0.1	8:49 8.2	14:52 0.7	20:57 8.5
	Th	22	3:12 0.0	9:30 8.3	15:35 0.5	21:40 8.5
A	F	23	3:52 0.0	10:05 8.5	16:12 0.3	22:20 8.6
○ E	S	24	4:27 0.0	10:37 8.7	16:55 0.1	22:52 8.7
	S	25	5:00 0.0	11:07 8.8	17:18 —0.1	23:24 8.7
	M	26	5:28 0.0	11:39 8.9	17:52 —0.2	23:57 8.7
	Tu	27	6:00 0.1	12:10 9.0	18:25 —0.4	. . . . . .
	W	28	0:32 8.7	6:35 0.1	12:45 9.1	19:05 —0.4
	Th	29	1:10 8.7	7:12 0.2	13:24 9.0	19:48 —0.5
	F	30	1:55 8.8	7:55 0.3	14:10 8.9	20:31 —0.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator: A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	2:43 8.5	8:47 0.5	15:00 8.8	21:30 —0.3
☾	S	2	3:38 8.4	9:41 0.6	15:57 8.7	22:28 —0.3
	M	3	4:40 8.4	10:43 0.6	17:00 8.7	23:28 —0.3
	Tu	4	5:45 8.5	11:52 0.5	18:04 8.9	. . . . . .
	W	5	0:32 —0.5	6:47 8.8	12:56 0.1	19:09 9.2
	Th	6	1:32 —0.8	7:47 9.3	13:57 —0.5	20:09 9.6
	F	7	2:28 —1.2	8:42 9.8	14:53 —1.1	21:05 10.1
P E	S	8	3:22 —1.5	9:34 10.3	15:47 —1.7	22:00 10.4
●	S	9	4:11 —1.7	10:22 10.6	16:32 —2.1	22:50 10.5
	M	10	5:00 —1.7	11:10 10.7	17:27 —2.2	23:40 10.4
	Tu	11	5:48 —1.5	11:57 10.6	18:17 —2.1	. . . . . .
	W	12	0:32 10.1	6:37 —1.1	12:47 10.3	19:08 —1.8
	Th	13	1:23 9.6	7:25 —0.6	13:37 9.9	20:00 —1.3
S	F	14	2:17 9.0	8:20 0.0	14:30 9.3	20:56 —0.8
	S	15	3:14 8.5	9:17 0.5	15:27 8.8	21:54 —0.3
☽	S	16	4:16 8.0	10:20 0.9	16:30 8.3	22:55 —0.2
	M	17	5:22 7.8	11:27 1.2	17:35 8.1	23:59 0.4
	Tu	18	6:23 7.8	12:30 1.2	18:38 8.0	. . . . . .
	W	19	0:57 0.4	7:20 8.0	13:29 1.0	19:36 8.0
A	Th	20	1:49 0.4	8:08 8.2	14:18 0.7	20:27 8.1
E	F	21	2:35 0.4	8:49 8.5	15:01 0.4	21:08 8.3
	S	22	3:14 0.3	9:27 8.7	15:37 0.2	21:45 8.4
	S	23	3:50 0.3	9:58 8.8	16:12 —0.1	22:20 8.6
○	M	24	4:22 0.2	10:32 9.1	16:47 —0.4	22:57 8.7
	Tu	25	4:55 0.2	11:04 9.3	17:22 —0.7	23:30 8.8
	W	26	5:30 0.1	11:40 9.4	18:00 —0.9	. . . . . .
	Th	27	0:07 9.0	6:05 0.0	12:17 9.4	18:41 —1.0
	F	28	0:48 9.0	6:47 0.1	13:00 9.3	19:25 —0.9
N	S	29	1:33 8.9	7:32 0.2	13:45 9.2	20:14 —0.8
	S	30	2:23 8.8	8:24 0.4	14:38 9.0	21:06 —0.6
☾	M	31	3:19 8.7	9:21 0.5	15:35 8.9	22:04 —0.5

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	4:18 8.7	10:25 0.5	16:38 8.8	23:05 —0.4
	W	2	5:22 8.7	11:33 0.3	17:43 8.8	. . . . . .
	Th	3	0:06 —0.4	6:24 9.0	12:38 —0.1	18:50 9.1
E	F	4	1:07 —0.6	7:22 9.4	13:38 —0.6	19:52 9.4
P	S	5	2:04 —0.8	8:18 9.8	14:35 —1.2	20:49 9.7
	S	6	2:59 —0.9	9:10 10.2	15:28 —1.6	21:42 9.9
●	M	7	3:50 —1.0	10:00 10.5	16:18 —1.9	22:30 10.0
	Tu	8	4:38 —1.0	10:47 10.6	17:08 —2.0	23:24 9.9
	W	9	5:26 —0.8	11:38 10.5	17:59 —1.9	. . . . . .
S	Th	10	0:14 9.6	6:15 —0.5	12:25 10.2	18:48 —1.6
	F	11	1:04 9.2	7:04 —0.1	13:14 9.7	19:37 —1.2
	S	12	1:55 8.8	7:57 0.3	14:04 9.2	20:29 —0.7
	S	13	2:48 8.4	8:58 0.8	14:59 8.6	21.24 —0.2
☽	M	14	3:44 8.1	9:50 1.1	15:56 8.1	22:19 0.2
	Tu	15	4:42 7.9	10:50 1.3	16:57 7.8	23:15 0.5
	W	16	5:39 7.9	11:50 1.2	17:55 7.6	. . . . . .
A	Th	17	0:10 0.7	6:32 8.0	12:46 1.1	18:52 7.7
E	F	18	1:02 0.8	7:17 8.2	13:35 0.8	19:42 7.8
	S	19	1:49 0.7	8:02 8.5	14:18 0.5	20:27 8.0
	S	20	2:31 0.6	8:41 8.7	15:00 0.0	21:08 8.2
	M	21	3:10 0.5	9:19 9.0	15:38 —0.3	21:48 8.4
○	Tu	22	3:47 0.3	9:57 9.3	16:17 —0.8	22:26 8.7
	W	23	4:24 0.2	10:35 9.5	16:56 —1.1	23:05 9.0
	Th	24	5:02 0.0	11:14 9.7	17:37 —1.3	23:46 9.1
N	F	25	5:43 —0.1	11:55 9.8	18:21 —1.4	. . . . . .
	S	26	0:30 9.2	6:27 —0.1	12:38 9.7	19:06 —1.4
	S	27	1:16 9.2	7:14 0.0	13:28 9.6	19:55 —1.2
	M	28	2:07 9.2	8:08 0.1	14:20 9.3	20:48 —0.9
	Tu	29	3:00 9.1	9:05 0.2	15:17 9.1	21:43 —0.7
☾	W	30	4:00 9.0	10:08 0.2	16:18 8.9	22:42 —0.4

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	4:58 9.0	11:12 0.0	17:24 8.8	23:42 —0.3
P	F	2	6:00 9.2	12:17 —0.2	18:30 8.9	. . . . . .
	S	3	0:43 —0.2	6:58 9.4	13:19 —0.6	19:33 9.0
	S	4	1:42 —0.3	7:56 9.7	14:17 —1.0	20:32 9.1
	M	5	2:38 —0.4	8:50 10.0	15:12 —1.3	21:28 9.2
●	Tu	6	3:31 —0.4	9:41 10.2	16:03 —1.6	22:20 9.3
	W	7	4:21 —0.4	10:32 10.2	16:52 —1.7	23:10 9.2
S	Th	8	5:10 —0.3	11:18 10.1	17:41 —1.6	23:59 9.1
	F	9	5:59 0.0	12:04 9.8	18:28 —1.3	. . . . . .
	S	10	0:46 8.9	6:45 0.2	12:52 9.4	19:15 —1.0
	S	11	1:32 8.6	7:32 0.5	13:40 9.0	20:01 —0.6
	M	12	2:20 8.4	8:22 0.8	14:28 8.5	20:49 —0.1
	Tu	13	3:07 8.2	9:14 1.0	15:18 8.1	21:38 0.3
☽ A	W	14	3:55 8.0	10:06 1.2	16:10 7.9	22:27 0.7
E	Th	15	4:46 8.0	11:00 1.2	17:05 7.5	23:18 0.9
	F	16	5:35 8.1	11:53 1.1	17:59 7.5	. . . . . .
	S	17	0:08 1.0	6:24 8.2	12:44 0.8	18:50 7.6
	S	18	0:56 0.9	7:12 8.4	13:33 0.5	19:41 7.7
	M	19	1:43 0.8	7:55 8.8	14:19 0.0	20:38 8.0
	Tu	20	2:28 0.6	8:40 9.1	15:04 —0.5	21:15 8.4
	W	21	3:12 0.4	9:25 9.5	15:48 —1.0	21:58 8.8
○ N	Th	22	3:56 0.1	10:10 9.8	16:32 —1.4	22:43 9.1
	F	23	4:38 —0.1	10:52 10.0	17:16 —1.7	23:27 9.4
	S	24	5:25 —0.3	11:37 10.2	18:02 —1.8	. . . . . .
	S	25	0:13 9.6	6:12 —0.5	12:24 10.1	18:44 —1.8
	M	26	1:01 9.6	7:01 —0.5	13:14 10.0	19:37 —1.6
P	Tu	27	1:50 9.6	7:52 —0.5	14:05 9.7	20:27 —1.3
	W	28	2:42 9.5	8:50 —0.4	15:01 9.3	21:22 —0.8
E ☾	Th	29	3:37 9.4	9:50 —0.3	16:01 9.1	22:20 —0.5
	F	30	4:35 9.3	10:53 —0.2	17:04 8.8	23:18 —0.1
	S	31	5:37 9.3	11:57 —0.3	18:09 8.5	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m), all greater are in the afternoon (p. m) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	3:06	9:23	15:46	21:53	
			0.1	10.6	−1.2	9.7	
N	S	2	4:00	10:15	16:37	22:44	
			−0.4	11.2	−1.8	10.2	
○	S	3	4:51	11:06	17:27	23:35	
			−0.7	11.5	−2.1	10.5	
P	M	4	5:42	11:56	18:17	. . .	
			−0.9	11.6	−2.2	. . .	
	Tu	5	0:26	6:34	12:47	19:07	
			10.6	−1.0	11.5	−2.1	
	W	6	1:17	7:25	13:38	20:00	
			10.2	−0.9	11.3	−1.9	
	Th	7	2:08	8:18	14:32	20:51	
			10.1	−0.8	10.9	−1.5	
E	F	8	3:02	9:15	15:27	21:45	
			10.4	−0.6	10.4	−1.0	
☾	S	9	3:58	10:12	16:25	22:42	
			10.3	−0.3	9.8	−0.6	
	S	10	4:56	11:13	17:25	23:38	
			10.1	−0.1	9.4	−0.2	
	M	11	5:55	12:17	18:27	. . .	
			10.0	0.1	9.0	. . .	
	Tu	12	0:38	6:55	13:19	19:30	
			0.1	9.9	0.2	8.7	
	W	13	1:36	7:52	14:18	20:32	
			0.3	10.0	0.1	8.7	
	Th	14	2:33	8:47	15:13	21:27	
			0.3	10.1	−0.1	8.7	
S	F	15	3:25	9:38	16:04	22:16	
			0.3	10.3	−0.2	8.8	
	S	16	4:15	10:25	16:50	23:00	
			0.3	10.3	−0.3	8.8	
●	S	17	5:00	11:10	17:30	23:42	
			0.3	10.2	−0.4	8.9	
	M	18	5:42	11:50	18:10	. . .	
			0.4	10.1	−0.4	. . .	
A	Tu	19	0:18	6:20	12:29	18:47	
			8.9	0.5	9.9	−0.3	
	W	20	0:55	6:58	13:06	19:25	
			8.9	0.6	9.7	−0.2	
	Th	21	1:32	7:37	13:45	20:01	
			9.0	0.7	9.4	0.0	
E	F	22	2:08	8:17	14:24	20:40	
			9.0	0.8	9.2	0.2	
	S	23	2:49	8:59	15:06	21:23	
			9.0	0.8	8.9	0.4	
	S	24	3:32	9:45	15:50	22:09	
			9.0	0.8	8.7	0.6	
☽	M	25	4:20	10:38	16:40	22:55	
			9.1	0.7	8.6	0.7	
	Tu	26	5:11	11:32	17:35	23:50	
			9.2	0.5	8.6	0.8	
	W	27	6:06	12:29	18:32	. . .	
			9.5	0.2	8.7	. . .	
	Th	28	0:46	7:03	13:27	19:33	
			0.7	9.8	−0.2	8.9	
N	F	29	1:44	8:02	14:26	20:31	
			0.3	10.3	−0.7	9.3	
	S	30	2:42	8:59	15:21	21:28	
			0.0	10.8	−1.2	9.8	
	S	31	3:36	9:53	16:15	22:23	
			−0.5	11.2	−1.7	10.2	

FEBRUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
○	M	1	4:31	10:47	17:07	23:16	
P			−0.9	11.6	−2.0	10.6	
	Tu	2	5:23	11:38	17:57	. . .	
			−1.3	11.8	−2.2	. . .	
	W	3	0:06	6:16	12:30	18:46	
			10.9	−1.4	11.7	−2.2	
E	Th	4	0:57	7:07	13:20	19:37	
			11.0	−1.4	11.5	−2.0	
	F	5	1:48	8:00	14:12	20:28	
			11.0	−1.3	11.0	−1.6	
	S	6	2:40	8:53	15:06	21:20	
			10.9	−1.0	10.5	−1.1	
	S	7	3:33	9:50	16:00	22:15	
			10.6	−0.6	9.8	−0.5	
☾	M	8	4:30	10:48	16:59	23:10	
			10.2	−0.2	9.2	0.0	
	Tu	9	5:28	11:48	18:01	. . .	
			9.9	0.1	8.7	. . .	
	W	10	0:10	6:27	12:52	19:04	
			0.4	9.7	0.4	8.4	
S	Th	11	1:10	7:26	13:52	20:06	
			0.6	9.7	0.5	8.3	
	F	12	2:08	8:22	14:48	21:02	
			0.7	9.7	0.3	8.3	
	S	13	3:00	9:12	15:40	21:53	
			0.7	9.8	0.2	8.5	
	S	14	3:50	10:00	16:23	22:37	
			0.6	9.9	0.0	8.7	
A	M	15	4:35	10:45	17:04	23:14	
			0.4	9.9	−0.1	8.8	
●	Tu	16	5:15	11:25	17:42	23:50	
			0.4	9.9	−0.2	9.0	
	W	17	5:50	12:02	18:17	. . .	
			0.3	9.9	−0.3	. . .	
	Th	18	0:24	6:32	12:38	18:52	
			9.2	0.3	9.7	−0.2	
E	F	19	0:58	7:07	13:16	19:30	
			9.3	0.2	9.6	−0.1	
	S	20	1:34	7:47	13:52	20:07	
			9.4	0.2	9.4	0.1	
	S	21	2:15	8:30	14:34	20:48	
			9.4	0.3	9.2	0.3	
	M	22	2:57	9:14	15:18	21:32	
			9.4	0.3	9.0	0.5	
	Tu	23	3:44	10:05	16:08	22:23	
			9.4	0.3	8.8	0.7	
☽	W	24	4:37	11:00	17:04	23:17	
			9.4	0.3	8.7	0.8	
	Th	25	5:35	11:58	18:03	. . .	
			9.5	0.1	8.7	. . .	
N	F	26	0:17	6:35	13:00	19:05	
			0.7	9.7	−0.1	8.9	
	S	27	1:19	7:37	14:00	20:07	
			0.4	10.1	−0.5	9.3	
	S	28	2:17	8:35	14:57	21:05	
			0.0	10.5	−1.0	9.3	
	M	29	3:17	9:33	15:58	22:02	
			−0.6	11.0	−1.4	10.3	

MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
P	Tu	1	4:12	10:28	16:45	22:55	
○			−1.0	11.4	−1.8	10.8	
	W	2	5:07	11:20	17:35	23:47	
			−1.5	11.6	−2.0	11.2	
E	Th	3	5:58	12:11	18:25	. . .	
			−1.8	11.6	−2.0	. . .	
	F	4	0:36	6:50	13:02	19:14	
			11.3	−1.8	11.4	−1.8	
	S	5	1:26	7:38	13:52	20:04	
			11.3	−1.7	11.0	−1.4	
	S	6	2:16	8:32	14:42	20:55	
			11.0	−1.3	10.3	−0.9	
	M	7	3:06	9:25	15:35	21:47	
			10.6	−0.8	9.7	−0.3	
☾	Tu	8	4:00	10:20	16:32	22:42	
			10.2	−0.3	9.1	0.3	
S	W	9	4:57	11:20	17:30	23:40	
			9.8	0.2	8.6	0.7	
	Th	10	5:56	12:20	18:34	. . .	
			9.5	0.5	8.3	. . .	
	F	11	0:40	6:55	13:20	19:35	
			0.9	9.2	0.7	8.2	
	S	12	1:37	7:52	14:16	20:31	
			1.0	9.2	0.6	8.3	
	S	13	2:32	8:45	15:05	21:20	
			0.9	9.3	0.5	8.5	
A	M	14	3:22	9:32	15:50	22:10	
			0.7	9.5	0.3	8.8	
	Tu	15	4:05	10:15	16:30	22:40	
			0.4	9.6	0.1	9.1	
	W	16	4:45	10:55	17:07	23:15	
			0.2	9.7	−0.1	9.3	
●	Th	17	5:28	11:32	17:42	23:52	
E			0.0	9.8	−0.2	9.6	
	F	18	6:01	12:10	18:18	. . .	
			−0.2	9.8	−0.2	. . .	
	S	19	0:27	6:41	12:47	18:57	
			9.7	−0.3	9.8	−0.1	
	S	20	1:04	7:20	13:26	19:35	
			9.8	−0.3	9.6	0.1	
	M	21	1:45	8:03	14:08	20:17	
			9.8	−0.3	9.4	0.3	
	Tu	22	2:28	8:48	14:52	21:04	
			9.7	−0.2	9.2	0.6	
	W	23	3:17	9:40	15:45	21:55	
			9.6	0.0	9.0	0.7	
N	Th	24	4:10	10:37	16:40	22:52	
☽			9.5	0.1	8.8	0.8	
	F	25	5:10	11:35	17:40	23:55	
			9.5	0.1	8.8	0.7	
	S	26	6:10	12:35	18:45	. . .	
			9.6	−0.1	9.0	. . .	
	S	27	0:58	7:14	13:37	19:47	
			0.4	9.9	−0.3	9.4	
	M	28	2:00	8:15	14:35	20:46	
			−0.1	10.2	−0.7	9.9	
P	Tu	29	3:00	9:14	15:30	21:42	
			−0.6	10.6	−1.1	10.5	
E	W	30	3:55	10:10	16:23	22:35	
			−1.2	11.0	−1.5	11.0	
○	Th	31	4:47	11:01	17:12	23:25	
			−1.7	11.2	−1.6	11.3	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:40	11:51	18:00	. . .	
			—1.9	11.2	—1.6	. . .	
	S	2	0:14	6:28	12:40	18:50	
			11.4	—1.9	11.0	—1.4	
	S	3	1:02	7:18	13:30	19:38	
			11.3	—1.7	10.6	—1.0	
	M	4	1:52	8:08	14:20	20:27	
			11.0	—1.3	10.0	—0.5	
	Tu	5	2:40	9:00	15:07	21:20	
			10.5	—0.8	9.4	0.1	
S	W	6	3:32	9:53	16:05	22:14	
			10.0	—0.3	8.9	0.6	
☾	Th	7	4:26	10:48	17:00	23:10	
			9.5	0.2	8.4	1.0	
	F	8	5:22	11:45	17:58	. . .	
			9.1	0.6	8.2	. . .	
	S	9	0:07	6:18	12:40	18:55	
			1.2	8.9	0.7	8.2	
A	S	10	1:04	7:15	13:35	19:48	
			1.2	8.8	0.7	8.3	
	M	11	1:56	8:05	14:25	20:35	
			1.0	8.9	0.6	8.6	
	Tu	12	2:45	8:55	15:10	21:20	
			0.7	9.1	0.4	9.0	
E	W	13	3:28	9:40	15:51	22:01	
			0.3	9.3	0.2	9.4	
	Th	14	4:10	10:22	16:30	22:40	
			0.0	9.6	0.0	9.7	
●	F	15	4:52	11:00	17:08	23:18	
			—0.4	9.7	—0.1	10.0	
	S	16	5:32	11:40	17:48	23:57	
			—0.6	9.9	—0.1	10.2	
	S	17	6:14	12:20	18:22	. . .	
			—0.7	9.9	—0.1	. . .	
	M	18	0:38	6:57	13:02	19:10	
			10.2	—0.9	9.8	0.0	
	Tu	19	1:20	7:41	13:47	19:53	
			10.2	—0.8	9.7	0.2	
N	W	20	2:05	8:28	14:35	20:42	
			10.1	—0.6	9.4	0.5	
	Th	21	2:55	9:20	15:25	21:35	
			9.9	—0.4	9.3	0.6	
☽	F	22	3:50	10:15	16:22	22:33	
			9.7	—0.3	9.1	0.7	
	S	23	4:48	11:15	17:22	23:34	
			9.5	—0.1	9.1	0.6	
	S	24	5:50	12:14	18:25	. . .	
			9.5	—0.1	9.2	. . .	
	M	25	0:40	6:53	13:15	19:25	
			0.3	9.6	—0.2	9.6	
P	Tu	26	1:42	7:56	14:12	20:27	
			—0.1	9.9	—0.5	10.1	
E	W	27	2:40	8:55	15:06	21:21	
			—0.7	10.2	—0.8	10.6	
	Th	28	3:37	9:52	16:00	22:14	
			—1.2	10.4	—1.0	11.0	
○	F	29	4:30	10:43	16:50	23:03	
			—1.5	10.5	—1.1	11.3	
	S	30	5:20	11:33	17:38	23:52	
			—1.7	10.5	—1.1	11.3	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	6:10	12:22	18:27	. . .	
			—1.7	10.3	—0.9	. . .	
	M	2	0:40	6:58	13:07	19:15	
			11.2	—1.5	10.0	—0.5	
S	Tu	3	1:27	7:47	13:57	20:08	
			10.8	—1.2	9.6	0.0	
	W	4	2:13	8:35	14:45	20:51	
			10.4	—0.7	9.2	0.4	
	Th	5	3:02	9:25	15:35	21:44	
			9.8	—0.2	8.8	0.9	
	F	6	3:53	10:15	16:27	22:35	
			9.3	0.2	8.5	1.2	
☾	S	7	4:45	11:06	17:20	23:28	
			8.9	0.5	8.3	1.3	
A	S	8	5:38	11:58	18:12	. . .	
			8.6	0.7	8.3	. . .	
	M	9	0:22	6:32	12:48	19:04	
			1.3	8.5	0.8	8.5	
	Tu	10	1:15	7:23	13:37	19:52	
			1.1	8.6	0.7	8.8	
E	W	11	2:05	8:12	14:25	20:36	
			0.7	8.8	0.5	9.2	
	Th	12	2:50	9:00	15:10	21:20	
			0.3	9.0	0.3	9.6	
	F	13	3:37	9:45	15:53	22:05	
			—0.2	9.4	0.1	10.0	
	S	14	4:20	10:30	16:34	22:47	
			—0.7	9.6	—0.1	10.4	
●	S	15	5:05	11:12	17:18	23:30	
			—1.0	9.8	—0.2	10.6	
	M	16	5:49	11:55	18:00	. . .	
			—1.3	9.9	—0.2	. . .	
N	Tu	17	0:14	6:35	12:41	18:43	
			10.7	—1.3	10.0	—0.2	
	W	18	0:57	7:22	13:28	19:32	
			10.7	—1.3	9.9	0.0	
	Th	19	1:47	8:10	14:16	20:22	
			10.5	—1.2	9.8	0.2	
	F	20	2:38	9:02	15:10	21:18	
			10.2	—0.8	9.6	0.3	
	S	21	3:32	9:58	16:06	22:18	
			9.9	—0.6	9.5	0.4	
☽ P	S	22	4:22	10:52	17:05	23:17	
			9.7	—0.4	9.5	0.3	
	M	23	5:28	11:52	18:05	. . .	
			9.5	—0.2	9.6	. . .	
E	Tu	24	0:22	6:33	12:52	19:06	
			0.1	9.5	—0.2	9.9	
	W	25	1:24	7:35	13:48	20:04	
			—0.2	9.5	—0.3	10.3	
	Th	26	2:23	8:35	14:45	21:00	
			—0.6	9.6	—0.4	10.6	
	F	27	3:20	9:32	15:40	21:52	
			—0.9	9.7	—0.5	10.9	
	S	28	4:12	10:25	16:30	22:42	
			—1.2	9.8	—0.6	11.1	
○	S	29	5:04	11:15	17:18	23:30	
			—1.3	9.8	—0.5	11.1	
S	M	30	5:52	12:03	18:05	. . .	
			—1.3	9.7	—0.3	. . .	
	Tu	31	0:17	6:38	12:49	18:51	
			10.9	—1.1	9.5	0.0	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	1:03	7:22	13:34	19:38	
			10.6	—0.8	9.3	0.3	
	Th	2	1:47	8:10	14:20	20:25	
			10.1	—0.6	9.0	0.7	
	F	3	2:33	8:53	15:04	21:10	
			9.7	—0.2	8.8	1.0	
	S	4	3:17	9:40	15:50	22:00	
			9.2	0.2	8.6	1.2	
A	S	5	4:06	10:27	16:38	22:47	
			8.8	0.5	8.5	1.3	
☾	M	6	4:55	11:12	17:25	23:38	
			8.5	0.7	8.6	1.3	
E	Tu	7	5:45	12:08	18:17	. . .	
			8.4	0.8	8.7	. . .	
	W	8	0:30	6:37	12:53	19:06	
			1.0	8.4	0.7	9.0	
	Th	9	1:23	7:27	13:40	19:55	
			0.7	8.6	0.6	9.4	
	F	10	2:12	8:20	14:30	20:43	
			0.2	8.9	0.4	9.9	
	S	11	3:02	9:08	15:17	21:30	
			—0.3	9.2	0.2	10.3	
	S	12	3:50	9:57	16:05	22:18	
			—0.7	9.5	—0.1	10.7	
●	M	13	4:38	10:45	16:50	23:05	
			—1.3	9.8	—0.3	11.0	
N	Tu	14	5:26	11:32	17:38	23:52	
			—1.6	10.0	—0.4	11.1	
	W	15	6:13	12:20	18:25	. . .	
			—1.7	10.2	—0.4	. . .	
	Th	16	0:40	7:02	13:10	19:17	
			11.1	—1.7	10.2	—0.4	
P	F	17	1:30	7:52	14:02	20:10	
			10.9	—1.5	10.1	—0.3	
	S	18	2:22	8:42	14:53	21:05	
			10.6	—1.3	10.0	—0.1	
	S	19	3:17	9:38	15:50	22:00	
			10.2	—0.9	10.0	—0.1	
☽ E	M	20	4:12	10:33	16:47	23:02	
			9.8	—0.6	9.9	0.0	
	Tu	21	5:12	11:32	17:45	. . .	
			9.5	—0.3	9.9	. . .	
	W	22	0:04	6:15	12:28	18:45	
			0.0	9.3	—0.1	10.0	
	Th	23	1:06	7:15	13:27	19:43	
			—0.1	9.1	—0.1	10.3	
	F	24	2:06	8:17	14:24	20:38	
			—0.3	9.1	—0.1	10.5	
	S	25	3:02	9:17	15:18	21:32	
			—0.5	9.1	—0.1	10.7	
	S	26	3:57	10:10	16:10	22:22	
			—0.7	9.2	—0.1	10.8	
S ○	M	27	4:47	11:00	16:57	23:10	
			—0.8	9.2	—0.1	10.7	
	Tu	28	5:32	11:45	17:45	23:55	
			—0.8	9.2	0.0	10.6	
	W	29	6:17	12:27	18:30	. . .	
			—0.8	9.1	0.2	. . .	
	Th	30	0:40	7:00	13:10	19:12	
			10.3	—0.6	9.0	0.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon: all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	1:22	7:40	13:50	19:54	E	M	1	2:12	8:27	14:35	20:42		Th	1	3:00	9:14	15:25	21:45
			10.0	—0.4	8.9	0.7				9.2	0.2	9.0	0.8				8.8	0.7	9.2	0.5
	S	2	2:03	8:22	14:30	20:37		Tu	2	2:52	9:08	15:16	21:27	☾	F	2	3:48	10:02	16:14	22:38
			9.6	—0.2	8.8	1.0				8.9	0.4	9.0	0.8				8.6	1.0	9.2	0.5
A	S	3	2:46	9:04	15:12	21:18		W	3	3:35	9:51	15:42	22:18		S	3	4:40	10:52	17:09	23:34
			9.2	0.2	8.8	1.1				8.7	0.7	9.0	0.8				8.5	1.0	9.3	0.4
E	M	4	3:28	9:45	15:57	22:08	☾	Th	4	4:22	10:37	16:51	23:10	N	S	4	5:35	11:52	18:07	. . .
			8.8	0.4	8.8	1.2				8.5	0.8	9.1	0.7				8.6	0.9	9.5	. . .
☾	Tu	5	4:15	10:31	16:43	22:55		F	5	5:14	11:27	17:42	. . .		M	5	0:33	6:37	12:52	19:06
			8.5	0.7	8.8	1.1				8.4	0.9	9.3	. . .				0.1	8.8	0.6	9.9
	W	6	5:00	11:20	17:33	23:45		S	6	0:05	6:08	12:20	18:38		Tu	6	1:32	7:38	13:52	20:07
			8.4	0.8	8.9	0.9				0.5	8.5	0.8	9.6				—0.2	9.1	0.1	10.3
	Th	7	5:52	12:08	18:23	. . .		S	7	1:02	7:06	13:18	19:36		W	7	2:26	8:37	14:50	21:05
			8.4	0.8	9.2	. . .				0.1	8.7	0.6	10.0				—0.7	9.6	—0.4	10.7
	F	8	0:42	6:45	13:00	19:16	N	M	8	1:58	8:04	14:06	20:32		Th	8	3:25	9:34	15:45	22:00
			0.6	8.5	0.7	9.5				—0.8	9.0	0.2	10.4				—1.2	10.2	—1.0	11.2
	S	9	1:35	7:40	13:50	20:07		Tu	9	2:54	9:01	15:11	21:27	P	F	9	4:18	10:27	16:40	22:52
			0.1	8.8	0.5	10.0				—0.8	9.5	—0.3	10.9	●			—1.6	10.8	—1.5	11.5
	S	10	2:27	8:30	14:44	21:00		W	10	3:48	9:55	16:05	22:20	E	S	10	5:07	11:18	17:30	23:44
			—0.4	9.1	0.2	10.5				—1.3	10.0	—0.7	11.3				—1.8	11.2	—1.8	11.6
N	M	11	3:22	9:28	15:36	21:52	●	Th	11	4:40	10:48	16:57	23:12		S	11	5:58	12:08	18:22	. . .
			—0.9	9.5	—0.2	10.9				—1.7	10.5	—0.7	11.6				—1.9	11.4	—1.9	. . .
	Tu	12	4:13	10:20	16:27	22:41	P	F	12	5:31	11:40	17:50	. . .		M	12	0:34	6:47	12:58	19:12
			—1.4	9.9	—0.5	11.2				—2.0	10.8	—1.4	. . .				11.4	—1.8	11.4	—1.9
●	W	13	5:03	11:12	17:17	23:32		S	13	0:04	6:20	12:30	18:42		Tu	13	1:24	7:37	13:48	20:05
			—1.7	10.2	—0.7	11.4				11.6	—2.0	11.0	—1.5				11.1	—1.5	11.3	—1.6
P	Th	14	5:52	12:01	18:08	. . .	E	S	14	0:54	7:10	13:22	19:33		W	14	2:16	8:27	14:40	20:54
			—1.9	10.4	—0.9	. . .				11.5	—1.9	11.1	—1.5				10.6	—1.0	10.9	—1.1
	F	15	0:22	6:42	12:50	19:00		M	15	1:45	8:00	14:12	20:26		Th	15	3:10	9:21	15:35	21:55
			11.5	—2.0	10.5	—1.0				11.1	—1.6	11.0	—1.3				10.0	—0.4	10.4	—0.6
	S	16	1:12	7:32	13:40	19:52		Tu	16	2:37	8:52	15:05	21:21	☽	F	16	4:06	10:17	16:32	22:55
			11.3	—1.8	10.6	—0.9				10.7	—1.2	10.8	—0.9				9.3	0.1	10.0	—0.1
E	S	17	2:05	8:22	14:35	20:45	☽	W	17	3:32	9:46	15:40	22:20	S	S	17	5:07	11:17	17:31	23:56
			11.0	—1.5	10.5	—0.7				10.1	—0.7	10.4	—0.5				8.8	0.5	9.7	—0.2
	M	18	2:58	9:15	15:28	21:42		Th	18	4:30	10:44	16:59	23:20		S	18	6:10	12:15	18:32	. . .
			10.5	—1.1	10.4	—0.5				9.5	—0.1	10.1	—0.1				8.5	0.8	9.4	. . .
☽	Tu	19	3:58	10:10	16:25	22:42		F	19	5:30	11:43	17:58	. . .		M	19	0:57	7:12	13:18	19:31
			10.0	—0.7	10.3	—0.3				9.0	0.2	9.9	. . .				0.4	8.4	0.9	9.4
	W	20	4:51	11:06	17:23	23:43	S	S	20	0:23	6:35	12:42	18:58		Tu	20	1:55	8:10	14:14	20:27
			9.6	—0.3	10.1	—0.1				0.2	8.6	0.5	9.8				0.4	8.5	0.8	9.4
	Th	21	5:53	12:02	18:23	. . .		S	21	1:25	7:39	13:42	19:57		W	21	2:47	9:01	15:04	21:17
			9.1	0.0	10.1	. . .				0.3	8.5	0.6	9.8				0.3	8.6	0.6	9.5
	F	22	0:45	6:55	13:05	19:22		M	22	2:24	8:38	14:37	20:52		Th	22	3:32	9:47	15:50	22:00
			0.0	8.8	0.2	10.1				0.2	8.5	0.5	9.9				0.2	8.9	0.3	9.6
	S	23	1:47	8:00	14:03	20:20		Tu	23	3:17	9:31	15:31	21:42	A	F	23	4:15	10:27	16:30	22:41
			0.0	8.7	0.3	10.2				0.1	8.7	0.4	10.0				0.0	9.2	0.2	9.7
S	S	24	2:44	9:00	14:58	21:13		W	24	4:05	10:17	16:18	22:30	○	S	24	4:52	11:03	17:10	23:19
			0.0	8.7	0.2	10.3				—0.1	8.8	0.3	10.0	E			0.0	9.4	0.0	9.7
	M	25	3:38	9:53	15:50	22:03	○	Th	25	4:46	10:59	17:00	23:10		S	25	5:28	11:36	17:47	23:55
			—0.2	8.8	0.2	10.4				—0.2	9.0	0.2	10.0				—0.1	9.6	—0.1	9.7
	Tu	26	4:28	10:42	16:40	22:50	A	F	26	5:25	11:35	17:39	23:50		M	26	6:04	12:12	18:22	. . .
			-0.4	8.9	0.2	10.4				—0.2	9.1	0.2	9.9				—0.1	9.7	—0.2	. . .
○	W	27	5:12	11:25	17:22	23:33		S	27	6:04	12:11	18:17	. . .		Tu	27	0:32	6:41	12:50	19:04
			—0.5	9.0	0.2	10.3				—0.2	9.2	0.2	. . .				9.6	0.1	9.7	—0.2
	Th	28	5:55	12:04	18:05	. . .	E	S	28	0:26	6:38	12:45	18:53		W	28	1:10	7:17	13:27	19:45
			—0.5	9.0	0.3	. . .				9.5	—0.1	9.3	0.2				9.5	0.2	9.6	—0.1
	F	29	0:15	6:32	12:42	18:45		M	29	1:02	7:14	13:20	19:30		Th	29	1:50	7:57	14:08	20:28
			10.1	—0.4	9.0	0.4				9.5	0.0	9.3	0.3				9.3	0.5	9.5	0.0
A	S	30	0:54	7:10	13:19	19:25		Tu	30	1:38	7:52	13:57	20:12		F	30	2:32	8:42	14:53	21:17
			9.8	—0.3	9.0	0.6				9.3	0.2	9.3	0.4				9.1	0.7	9.4	0.1
	S	31	1:32	7:49	13:54	20:00		W	31	2:17	8:28	14:38	20:55							
			9.5	—0.1	9.0	0.7				9.1	0.4	9.3	0.4							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15.47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E., moon on the equator; N. S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	3:21 8.8	9:32 0.9	15:45 9.3	22:10 0.2
☾	S	2	4:15 8.7	10:27 1.0	16:42 9.3	23:07 0.2
	M	3	5:12 8.7	11:26 0.9	17:40 9.4	. . . . . .
	Tu	4	0:07 0.1	6:15 8.9	12:28 0.6	18:45 9.6
	W	5	1:06 —0.1	7:15 9.3	13:30 0.1	19:46 10.0
	Th	6	2:04 —0.5	8:16 9.8	14:30 —0.5	20:44 10.4
	F	7	3:00 —0.9	9:10 10.4	15:26 —1.2	21:39 10.9
P E	S	8	3:53 —1.3	10:05 11.0	16:20 —1.7	22:32 11.1
●	S	9	4:44 —1.5	10:56 11.4	17:10 —2.0	23:23 11.2
	M	10	5:33 —1.6	11:46 11.6	18:01 —2.2	. . . . . .
	Tu	11	0:14 11.1	6:24 —1.5	12:35 11.6	18:52 —2.0
	W	12	1:05 10.8	7:12 —1.1	13:25 11.3	19:42 —1.7
	Th	13	1:55 10.3	8:03 —0.7	14:15 10.9	20:36 —1.2
S	F	14	2:47 9.7	8:55 —0.1	15:08 10.4	21:30 —0.7
	S	15	3:42 9.2	9:43 0.4	16:03 9.8	22:27 —0.1
☽	S	16	4:39 8.7	10:48 0.7	17:00 9.4	23:24 0.3
	M	17	5:38 8.4	11:48 1.0	18:00 9.1	. . . . . .
	Tu	18	0:23 0.5	6:39 8.4	12:46 1.0	18:58 8.9
	W	19	1:18 0.6	7:38 8.5	13:42 1.0	19:55 8.9
A	Th	20	2:09 0.5	8:24 8.7	14:33 0.7	20:42 9.1
E	F	21	2:55 0.4	9:07 9.1	15:17 0.4	21:27 9.2
	S	22	3:35 0.2	9:48 9.4	15:59 0.1	22:09 9.4
	S	23	4:16 0.1	10:27 9.7	16:38 —0.2	22:45 9.5
○	M	24	4:54 0.0	11:04 9.9	17:17 —0.5	23:25 9.6
	Tu	25	5:30 0.0	11:41 10.0	17:56 —0.6	. . . . . .
	W	26	0:02 9.6	6:10 0.1	12:18 10.1	18:37 —0.7
	Th	27	0:42 9.6	6:48 0.2	13:00 10.1	19:19 —0.7
	F	28	1:25 9.5	7:30 0.4	13:43 9.9	20:07 —0.5
N	S	29	2:10 9.3	8:17 0.6	14:30 9.8	20:55 —0.3
	S	30	3:00 9.1	9:06 0.7	15:22 9.5	21:48 —0.1
☾	M	31	3:55 9.0	10:05 0.8	16:18 9.5	22:44 0.0

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	4:52 9.0	11:06 0.7	17:19 9.4	23:43 0.0
	W	2	5:58 9.2	12:10 0.4	18:21 9.5	. . . . . .
	Th	3	0:42 —0.1	6:54 9.5	13:12 0.0	19:22 9.7
E	F	4	1:42 —0.3	7:58 10.0	14:10 —0.6	20:23 10.0
P	S	5	2:37 —0.6	8:50 10.6	15:06 —1.1	21:20 10.3
	S	6	3:30 —0.9	9:44 11.1	16:02 —1.6	22:15 10.5
●	M	7	4:22 —1.1	10:35 11.4	16:53 —1.9	23:06 10.6
	Tu	8	5:12 —1.2	11:25 11.6	17:43 —2.0	23:56 10.5
	W	9	6:00 —1.0	12:13 11.5	18:33 —1.8	. . . . . .
S	Th	10	0:45 10.3	6:51 —0.7	13:02 11.2	19:22 —1.6
	F	11	1:34 9.9	7:40 —0.3	13:51 10.8	20:12 —1.1
	S	12	2:24 9.5	8:27 0.1	14:42 10.2	21:03 —0.6
	S	13	3:15 9.1	9:22 0.6	15:34 9.6	21:55 —0.1
☽	M	14	4:07 8.7	10:15 1.0	16:28 9.2	22:48 0.2
	Tu	15	5:08 8.5	11:12 1.2	17:22 8.8	23:43 0.5
	W	16	5:58 8.5	12:08 1.2	18:17 8.6	. . . . . .
A	Th	17	0:35 0.7	6:50 8.5	13:02 1.2	19:10 8.5
E	F	18	1:23 0.7	7:38 8.8	13:52 0.9	20:00 8.6
	S	19	2:10 0.6	8:25 9.2	14:37 0.5	20:47 8.8
	S	20	2:56 0.4	9:07 9.5	15:22 0.1	21:32 9.0
	M	21	3:35 0.3	9:48 9.9	16:04 —0.3	22:14 9.3
○	Tu	22	4:20 0.1	10:31 10.2	16:47 —0.7	22:55 9.5
	W	23	5:01 0.0	11:12 10.4	17:30 —1.0	23:37 9.7
	Th	24	5:42 0.0	11:54 10.5	18:14 —1.2	. . . . . .
N	F	25	0:20 9.7	6:24 0.0	12:37 10.5	19:00 —1.2
	S	26	1:05 9.7	7:08 0.1	13:23 10.4	19:45 —1.0
	S	27	1:50 9.7	7:57 0.2	14:10 10.2	20:35 —0.8
	M	28	2:42 9.5	8:50 0.3	15:03 9.9	21:28 —0.5
	Tu	29	3:36 9.4	9:47 0.3	16:00 9.6	22:22 —0.3
☾	W	30	4:33 9.4	10:46 0.4	16:59 9.4	23:21 —0.1

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	5:33 9.5	11:45 0.2	18:00 9.3	. . . . . .
P	F	2	0:18 —0.1	6:33 9.8	12:50 —0.1	19:00 9.4
	S	3	1:17 —0.1	7:32 10.2	13:52 —0.5	20:04 9.5
	S	4	2:15 —0.3	8:30 10.6	14:50 —0.9	21:02 9.7
	M	5	3:10 —0.5	9:25 11.0	15:45 —1.2	21:57 9.8
●	Tu	6	4:01 —0.5	10:16 11.2	16:38 —1.5	22:50 9.9
	W	7	4:53 —0.7	11:06 11.3	17:27 —1.6	23:40 9.9
S	Th	8	5:42 —0.6	11:55 11.2	18:16 —1.5	. . . . . .
	F	9	0:27 9.8	6:29 —0.4	12:42 11.0	19:02 —1.3
	S	10	1:14 9.6	7:18 0.0	13:28 10.6	19:48 —1.0
	S	11	2:00 9.4	8:03 0.3	14:15 10.1	20:35 —0.6
	M	12	2:47 9.1	8:53 0.7	15:02 9.5	21:22 —0.2
	Tu	13	3:34 8.8	9:40 1.0	15:50 9.0	22:10 0.2
☽ A	W	14	4:22 8.7	10:32 1.2	16:40 8.6	23:00 0.5
E	Th	15	5:12 8.6	11:24 1.3	17:30 8.4	23:47 0.8
	F	16	6:02 8.7	12:17 1.2	18:22 8.3	. . . . . .
	S	17	0:37 0.9	6:50 8.9	13:07 1.0	19:12 8.3
	S	18	1:27 0.8	7:40 9.2	13:57 0.6	20:03 8.5
	M	19	2:10 0.6	8:28 9.6	14:46 0.1	20:52 8.8
	Tu	20	3:00 0.4	9:14 10.0	15:34 —0.4	21:40 9.1
	W	21	3:43 0.2	10:00 10.4	16:20 —0.9	22:27 9.5
○ N	Th	22	4:32 0.0	10:46 10.7	17:05 —1.3	23:12 9.7
	F	23	5:17 —0.2	11:32 10.9	17:53 —1.5	23:59 10.0
	S	24	6:05 —0.4	12:18 11.0	18:40 —1.6	. . . . . .
	S	25	0:45 10.1	6:51 —0.4	13:05 10.9	19:27 —1.5
	M	26	1:34 10.1	7:42 —0.4	13:55 10.7	20:15 —1.2
P	Tu	27	2:24 10.1	8:33 —0.3	14:46 10.3	21:08 —0.9
	W	28	3:17 10.0	9:30 —0.1	15:42 9.9	22:11 —0.6
E ☾	Th	29	4:10 9.9	10:27 0.0	16:38 9.6	22:55 —0.3
	F	30	5:11 9.9	11:29 0.0	17:40 9.3	23:55 0.0
	S	31	6:11 10.0	12:32 —0.1	18:40 9.1	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:46 4.3	11:37 —0.5	18:15 3.6	23:42 —0.6	
N	S	2	6:31 4.5	12:24 —0.7	19:00 3.8	. . .	
○	S	3	0:30 —0.7	7:19 4.6	13:14 —0.8	19:47 3.9	
P	M	4	1:20 —0.8	8:19 4.5	14:00 —0.8	20:37 4.0	
	Tu	5	2:12 —0.8	9:00 4.4	14:50 —0.8	21:27 3.9	
	W	6	3:03 —0.7	9:50 4.2	15:37 —0.7	22:20 3.9	
	Th	7	3:55 —0.5	10:45 3.9	16:26 —0.5	23:15 3.8	
E	F	8	4:52 —0.3	11:42 3.7	17:19 —0.3	. . .	
☾	S	9	0:12 3.7	5:48 0.0	12:42 3.4	18:11 —0.1	
	S	10	1:12 3.6	6:52 0.2	13:45 3.2	19:10 0.0	
	M	11	2:16 3.6	8:00 0.4	14:47 3.2	20:10 0.1	
	Tu	12	3:14 3.7	9:10 0.4	15:45 3.2	21:08 0.2	
	W	13	4:10 3.8	10:12 0.4	16:40 3.2	22:08 0.1	
	Th	14	5:01 3.9	11:02 0.3	17:31 3.3	22:56 0.0	
S	F	15	5:48 4.0	11:47 0.2	18:16 3.4	23:43 0.0	
	S	16	6:33 4.0	12:25 0.1	19:00 3.4	. . .	
●	S	17	0:25 —0.1	7:15 4.0	13:00 0.0	19:42 3.4	
	M	18	1:06 —0.1	7:54 3.9	13:36 —0.1	20:20 3.4	
A	Tu	19	1:42 —0.1	8:32 3.8	14:10 —0.2	21:00 3.3	
	W	20	2:18 —0.1	9:07 3.6	14:46 —0.2	21:35 3.3	
	Th	21	2:55 —0.1	9:45 3.4	15:22 —0.2	22:13 3.2	
E	F	22	3:33 0.0	10:20 3.2	16:02 —0.1	22:58 3.1	
	S	23	4:18 0.0	11:02 3.0	16:45 0.0	23:40 3.1	
	S	24	5:06 0.1	11:49 2.9	17:30 0.0	. . .	
☽	M	25	0:30 3.1	6:01 0.1	12:46 2.8	18:20 0.1	
	Tu	26	1:30 3.2	7:01 0.2	13:53 2.8	19:18 0.1	
	W	27	2:30 3.4	8:06 0.1	15:00 2.9	20:22 0.0	
	Th	28	3:30 3.6	9:12 0.0	16:01 3.1	21:19 —0.1	
N	F	29	4:25 3.9	10:14 —0.2	16:57 3.4	22:22 —0.4	
	S	30	5:22 4.2	11:12 —0.4	17:50 3.7	23:22 —0.6	
	S	31	6:18 4.4	12:06 —0.7	18:39 4.0	. . .	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○ P	M	1	0:16 —0.8	7:03 4.5	12:55 —0.8	19:28 4.1	
	Tu	2	1:07 —1.0	7:53 4.6	13:42 —0.9	20:16 4.2	
	W	3	1:57 —1.0	8:43 4.5	14:27 —0.9	21:05 4.2	
E	Th	4	2:47 —0.8	9:32 4.2	15:14 —0.8	21:55 4.1	
	F	5	3:37 —0.7	10:23 4.0	16:02 —0.6	22:47 4.0	
	S	6	4:29 —0.4	11:16 3.6	16:48 —0.3	23:42 3.8	
	S	7	5:24 —0.1	12:15 3.3	17:41 —0.1	. . .	
☾	M	8	0:42 3.6	6:25 0.4	13:15 3.1	18:36 0.1	
	Tu	9	1:45 3.5	7:25 0.5	14:18 3.0	19:36 0.3	
	W	10	2:48 3.5	8:37 0.6	15:18 3.0	20:43 0.4	
S	Th	11	3:45 3.5	9:43 0.6	16:18 3.1	21:45 0.3	
	F	12	4:40 3.6	10:38 0.5	17:08 3.2	22:38 0.2	
	S	13	5:27 3.7	11:22 0.4	17:53 3.3	23:25 0.1	
	S	14	6:10 3.8	12:00 0.2	18:36 3.4	. . .	
A	M	15	0:04 0.0	6:52 3.8	12:33 0.0	19:16 3.5	
●	Tu	16	0:43 —0.1	7:30 3.8	13:07 —0.1	19:52 3.5	
	W	17	1:19 —0.2	8:07 3.7	13:40 —0.2	20:27 3.5	
	Th	18	1:55 —0.2	8:42 3.6	14:15 —0.3	21:03 3.5	
E	F	19	2:30 —0.3	9:17 3.5	14:52 —0.3	21:39 3.4	
	S	20	3:10 —0.3	9:54 3.3	15:28 —0.3	22:17 3.3	
	S	21	3:52 —0.2	10:33 3.1	16:11 —0.2	23:02 3.3	
	M	22	4:40 —0.1	11:18 2.9	16:56 —0.1	23:54 3.3	
	Tu	23	5:34 0.0	12:14 2.8	17:50 0.0	. . .	
☽	W	24	0:54 3.3	6:32 0.1	13:22 2.7	18:48 0.0	
	Th	25	2:00 3.4	7:37 0.1	14:32 2.9	19:52 0.0	
N	F	26	3:02 3.5	8:44 0.0	15:36 3.2	21:00 —0.1	
	S	27	4:05 3.8	9:49 —0.1	16:35 3.5	22:06 —0.4	
	S	28	5:01 4.1	10:48 —0.4	17:27 3.8	23:05 —0.6	
	M	29	5:55 4.3	11:42 —0.5	18:18 4.1	. . .	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	0:00 —0.9	6:46 4.5	12:33 —0.8	19:05 4.4	
	W	2	0:52 —1.0	7:35 4.5	13:18 —0.9	19:54 4.5	
E	Th	3	1:41 —1.0	8:22 4.4	14:04 —0.9	20:42 4.4	
	F	4	2:30 —0.9	9:09 4.2	14:48 —0.8	21:30 4.3	
	S	5	3:17 —0.7	10:00 3.9	15:34 —0.6	22:22 4.1	
	S	6	4:05 —0.4	10:50 3.6	16:20 —0.3	23:15 3.8	
	M	7	4:55 —0.1	11:46 3.3	17:10 0.0	. . .	
☾	Tu	8	0:13 3.6	5:48 0.3	12:45 3.0	18:05 0.2	
S	W	9	1:15 3.4	6:46 0.5	13:50 2.9	19:02 0.4	
	Th	10	2:18 3.3	7:52 0.7	14:53 2.9	20:10 0.6	
	F	11	3:18 3.3	9:00 0.7	15:52 3.0	21:17 0.5	
	S	12	4:13 3.3	9:58 0.6	16:42 3.1	22:12 0.4	
	S	13	5:00 3.5	10:42 0.4	17:27 3.3	23:00 0.3	
A	M	14	5:45 3.6	11:24 0.2	18:09 3.5	23:38 0.1	
	Tu	15	6:25 3.7	12:00 0.0	18:45 3.6	. . .	
	W	16	0:17 —0.1	7:02 3.7	12:36 —0.2	19:22 3.7	
● E	Th	17	0:55 —0.3	7:40 3.7	13:12 —0.3	19:57 3.8	
	F	18	1:32 —0.4	8:16 3.6	13:46 —0.5	20:32 3.7	
	S	19	2:10 —0.5	8:52 3.5	14:22 —0.4	21:08 3.7	
	S	20	2:50 —0.5	9:30 3.3	15:00 —0.3	21:49 3.6	
	M	21	3:32 —0.4	10:10 3.2	15:43 —0.3	22:35 3.5	
	Tu	22	4:20 —0.3	11:00 3.0	16:30 —0.2	23:27 3.4	
	W	23	5:12 —0.2	11:54 2.9	17:23 0.0	. . .	
N ☽	Th	24	0:27 3.3	6:10 0.0	13:00 2.9	18:25 0.0	
	F	25	1:35 3.4	7:15 0.1	14:08 3.0	19:32 0.0	
	S	26	2:40 3.5	8:18 0.1	15:15 3.3	20:43 —0.1	
	S	27	3:45 3.7	9:25 —0.1	16:12 3.6	21:50 —0.3	
	M	28	4:42 3.9	10:23 —0.3	17:06 4.0	22:50 —0.6	
P	Tu	29	5:37 4.1	11:18 —0.5	17:56 4.3	23:45 —0.8	
E	W	30	6:27 4.3	12:06 —0.7	18:45 4.5	. . .	
○	Th	31	0:35 —0.9	7:14 4.3	12:52 —0.8	19:31 4.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	1:23	8:00	13:39	20:18		S	1	1:48	8:25	13:55	20:42		W	1	2:52	9:40	15:00	21:52
			—0.9	4.2	—0.8	4.6				—0.6	3.8	—0.6	4.4				—0.2	3.3	0.0	3.7
	S	2	2:10	8:47	14:22	21:06		M	2	2:33	9:13	14:40	21:30		Th	2	3:32	10:21	15:42	22:40
			—0.8	4.0	—0.7	4.4				—0.5	3.6	—0.4	4.1				—0.1	3.1	0.2	3.4
	S	3	2:55	9:36	15:06	21:56	S	Tu	3	3:16	10:02	15:22	22:20		F	3	4:14	11:16	16:20	22:28
			—0.6	3.8	—0.5	4.1				—0.3	3.4	—0.1	3.8				0.1	3.0	0.4	3.2
	M	4	3:40	10:25	15:50	22:47		W	4	4:00	10:54	16:09	23:11		S	4	4:55	12:08	17:12	. . .
			—0.3	3.5	—0.2	3.8				0.0	3.1	0.1	3.4				0.3	2.9	0.5	. . .
	Tu	5	4:27	11:20	16:40	23:42		Th	5	4:45	11:48	17:00	. . .	A	S	5	0:18	5:40	13:00	18:00
			0.0	3.2	0.1	3.5				0.2	2.9	0.4	. . .				2.9	0.3	2.8	0.6
S	W	6	5:15	12:17	17:30	. . .		F	6	0:06	5:31	12:47	17:50	☾	M	6	1:12	6:30	13:52	19:00
			0.2	3.0	0.4	. . .				3.2	0.4	2.8	0.6				2.8	0.4	2.9	0.6
☾	Th	7	0:40	6:05	13:20	18:30	☾	S	7	1:03	6:20	13:45	18:48	E	Tu	7	2:07	7:23	14:42	19:57
			3.3	0.5	2.8	0.6				3.0	0.5	2.8	0.7				2.8	0.3	3.0	0.5
	F	8	1:44	7:05	14:24	19:32	A	S	8	2:00	7:17	14:41	19:50		W	8	3:00	8:15	15:28	20:54
			3.1	0.6	2.8	0.7				2.9	0.6	2.9	0.7				2.8	0.3	3.2	0.4
	S	9	2:43	8:07	15:20	20:38		M	9	2:55	8:10	15:30	20:47		Th	9	3:49	9:09	16:14	21:50
			3.1	0.7	2.9	0.7				2.9	0.5	3.1	0.6				3.0	0.1	3.5	0.1
A	S	10	3:38	9:05	16:10	21:35		Tu	10	3:45	9:02	16:15	21:40		F	10	4:40	10:00	17:00	22:43
			3.1	0.6	3.1	0.6				3.0	0.4	3.3	0.3				3.1	0.0	3.8	—0.1
	M	11	4:27	9:53	16:55	22:23	E	W	11	4:32	9:54	16:55	22:23		S	11	5:27	10:50	17:45	23:34
			3.2	0.5	3.3	0.4				3.1	0.2	3.5	0.1				3.3	—0.2	4.0	—0.4
	Tu	12	5:12	10:40	17:34	23:05		Th	12	5:16	10:40	17:37	23:15		S	12	6:15	11:37	18:30	. . .
			3.4	0.2	3.5	0.1				3.3	0.0	3.8	—0.1				3.5	—0.4	4.2	. . .
E	W	13	5:50	11:20	18:12	23:47		F	13	5:58	11:24	18:16	. . .	●	M	13	0:22	7:00	12:25	19:17
			3.5	0.0	3.7	—0.1				3.4	—0.2	4.0	. . .				—0.6	3.6	—0.5	4.3
	Th	14	6:32	12:00	18:48	. . .		S	14	0.00	6:42	12:05	18:57	N	Tu	14	1:10	7:46	13:14	20:03
			3.6	—0.2	3.9	. . .				—0.4	3.5	—0.4	4.1				—0.7	3.6	—0.6	4.3
●	F	15	0:27	7:11	12:40	19:25	●	S	15	0:45	7:25	12:51	19:38		W	15	1:56	8:32	14:03	20:52
			—0.4	3.6	—0.3	4.0				—0.6	3.6	—0.5	4.2				—0.7	3.7	—0.6	4.3
	S	16	1:09	7:50	13:18	20:03		M	16	1:28	8:06	13:33	20:22		Th	16	2:43	9:23	14:52	21:44
			—0.5	3.6	—0.4	4.0				—0.7	3.6	—0.5	4.2				—0.7	3.6	—0.6	4.1
	S	17	1:48	8:28	13:57	20:43	N	Tu	17	2:15	8:52	14:18	21:10	P	F	17	3:32	10:14	15:45	22:37
			—0.6	3.5	—0.5	4.0				—0.7	3.5	—0.5	4.1				—0.6	3.6	—0.4	3.9
	M	18	2:30	9:10	14:37	21:27		W	18	3:00	9:40	15:06	22:00		S	18	4:22	11:10	16:40	23:34
			—0.6	3.4	—0.4	3.9				—0.6	3.4	—0.4	3.9				—0.5	3.6	—0.3	3.7
	Tu	19	3:16	9:56	15:22	22:15		Th	19	3:48	10:33	15:58	22:52		S	19	5:14	12:08	17:37	. . .
			—0.5	3.3	—0.4	3.7				—0.5	3.3	—0.3	3.7				—0.3	3.5	—0.1	. . .
N	W	20	4:03	10:45	16:10	23:07		F	20	4:40	11:28	16:52	23:52	☽ E	M	20	0:35	6:07	13:05	18:40
			—0.4	3.1	—0.2	3.6				—0.3	3.3	—0.2	3.6				3.5	—0.2	3.6	0.0
	Th	21	4:56	11:41	17:05	. . .		S	21	5:34	12:28	17:54	. . .		Tu	21	1:37	7:03	14:05	19:46
			—0.2	3.0	—0.1	. . .				—0.2	3.3	0.0	. . .				3.4	—0.1	3.7	0.2
☽	F	22	0:07	5:50	12:45	18:08	☽ P	S	22	0:55	6:31	13:28	19:01		W	22	2:38	8:04	15:04	20:53
			3.4	—0.1	3.0	0.0				3.4	0.0	3.4	0.1				3.3	0.0	3.8	0.2
	S	23	1:12	6:51	13:50	19:17		M	23	2:00	7:31	14:28	20:08		Th	23	3:36	9:00	16:00	22:00
			3.4	0.0	3.2	0.0				3.4	0.0	3.6	0.0				3.3	0.0	4.0	0.1
	S	24	2:20	7:56	14:52	20:27	E	Tu	24	3:02	8:30	15:26	21:14		F	24	4:32	9:57	16:55	22:52
			3.4	0.0	3.4	0.0				3.4	—0.1	3.8	0.0				3.4	—0.1	4.1	0.0
	M	25	3:23	9:00	15:48	21:32		W	25	4:00	9:28	16:22	22:15		S	25	5:24	10:50	17:42	23:42
			3.6	—0.1	3.7	—0.2				3.5	—0.2	4.1	—0.2				3.5	—0.2	4.2	—0.1
P	Tu	26	4:22	9:55	16:45	22:32		Th	26	4:54	10:22	17:12	23:09		S	26	6:12	11:40	18:30	. . .
			3.7	—0.3	4.1	—0.4				3.6	—0.3	4.3	—0.3				3.5	—0.2	4.3	. . .
E	W	27	5:15	10:50	17:33	23:27		F	27	5:45	11:12	18:00	. . .	S ○	M	27	0:27	7:00	12:25	19:16
			3.9	—0.5	4.4	—0.6				3.7	—0.4	4.4	. . .				—0.1	3.6	—0.2	4.2
	Th	28	6:05	11:38	18:21	. . .		S	28	0:00	6:32	12:01	18:48		Tu	28	1:07	7:45	13:10	20:00
			4.0	—0.6	4.5	. . .				—0.4	3.8	—0.5	4.5				—0.2	3.5	—0.2	4.1
○	F	29	0:17	6:52	12:26	19:10	○	S	29	0:44	7:17	12:47	19:35		W	29	1:45	8:28	13:55	20:42
			—0.7	4.0	—0.7	4.6				—0.4	3.7	—0.5	4.4				—0.2	3.5	—0.1	3.9
	S	30	1:03	7:39	13:11	19:55	S	M	30	1:28	8:05	13:31	20:20		Th	30	2:25	9:12	14:33	21:25
			—0.7	4.0	—0.7	4.5				—0.4	3.6	—0.4	4.2				—0.2	3.4	0.0	3.7
								Tu	31	2:12	8:52	14:15	21:06							
										—0.3	3.5	—0.2	4.0							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:03	9:56	15:12	22:08	
			—0.1	3.2	0.1	3.4	
	S	2	3:40	10:41	15:52	22:49	
			0.0	3.1	0.3	3.2	
A	S	3	4:19	11:27	16:35	23:32	
			0.1	3.0	0.3	3.0	
E	M	4	5:02	12:10	17:20	. . .	
			0.2	2.9	0.4	. . .	
☾	Tu	5	0:20	5:46	13:00	18:11	
			2.8	0.2	2.9	0.4	
	W	6	1:12	6:37	13:51	19:12	
			2.7	0.2	3.0	0.4	
	Th	7	2:09	7:30	14:45	20:12	
			2.7	0.2	3.2	0.3	
	F	8	3:08	8:25	15:36	21:14	
			2.8	0.1	3.5	0.1	
	S	9	4:05	9:23	16:30	22:12	
			3.0	—0.1	3.8	—0.1	
	S	10	4:57	10:20	17:18	23:07	
			3.3	—0.3	4.0	—0.3	
N	M	11	5:47	11:15	18:08	. . .	
			3.5	—0.4	4.3	. . .	
	Tu	12	0:00	6:37	12:05	18:57	
			—0.5	3.7	—0.6	4.4	
●	W	13	0:50	7:25	12:58	19:47	
			—0.7	3.8	—0.7	4.5	
P	Th	14	1:38	8:12	13:48	20:35	
			—0.8	3.9	—0.8	4.4	
	F	15	2:26	9:02	14:39	21:25	
			—0.8	3.9	—0.8	4.2	
	S	16	3:12	9:55	15:32	22:19	
			—0.7	3.9	—0.6	4.0	
E	S	17	4:01	10:47	16:23	23:15	
			—0.6	3.9	—0.5	3.8	
	M	18	4:52	11:42	17:18	. . .	
			—0.4	3.8	—0.2	. . .	
☽	Tu	19	0:10	5:44	12:41	18:20	
			3.5	—0.2	3.7	0.1	
	W	20	1:12	6:38	13:42	19:24	
			3.3	—0.1	3.7	0.3	
	Th	21	2:15	7:36	14:42	20:30	
			3.2	0.1	3.7	0.4	
	F	22	3:14	8:37	15:40	21:37	
			3.1	0.1	3.8	0.4	
	S	23	4:12	9:37	16:35	22:35	
			3.2	0.1	3.9	0.3	
S	S	24	5:05	10:32	17:25	23:24	
			3.3	0.0	4.0	0.2	
	M	25	5:53	11:23	18:12	. . .	
			3.4	—0.1	4.1	. . .	
	Tu	26	0:05	6:40	12:08	18:57	
			0.1	3.5	—0.1	4.0	
○	W	27	0:44	7:22	12:52	19:40	
			0.0	3.5	—0.1	4.0	
	Th	28	1:20	8:04	13:32	20:18	
			—0.1	3.5	—0.1	3.9	
	F	29	1:57	8:40	14:08	20:56	
			—0.1	3.5	—0.1	3.7	
A	S	30	2:32	9:25	14:45	21:35	
			—0.1	3.4	0.0	3.5	
	S	31	3:08	10:03	15:20	22:11	
			—0.1	3.2	0.0	3.2	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	3:45	10:40	16:03	22:50	
			—0.1	3.1	0.1	3.0	
	Tu	2	4:26	11:26	16:47	23:34	
			0.0	3.1	0.2	2.8	
	W	3	5:10	12:10	17:37	. . .	
			0.1	3.0	0.2	. . .	
☾	Th	4	0:25	5:57	13:05	18:35	
			2.7	0.1	3.1	0.3	
	F	5	1:25	6:52	14:04	19:34	
			2.7	0.2	3.2	0.2	
	S	6	2:30	7:50	15:02	20:40	
			2.8	0.1	3.4	0.1	
	S	7	3:33	8:55	16:00	21:42	
			3.0	0.0	3.7	0.1	
N	M	8	4:30	9:55	16:55	22:43	
			3.3	—0.2	4.0	—0.2	
	Tu	9	5:22	10:55	17:47	23:37	
			3.6	—0.5	4.2	—0.5	
	W	10	6:13	11:48	18:37	. . .	
			3.8	—0.7	4.4	. . .	
●	Th	11	0:28	7:02	12:42	19:27	
			—0.7	4.1	—0.9	4.5	
P	F	12	1:16	7:50	13:32	20:18	
			—0.8	4.2	—1.0	4.5	
	S	13	2:02	8:40	14:22	21:06	
			—0.9	4.3	—0.9	4.3	
E	S	14	2:50	9:28	15:12	21:57	
			—0.8	4.2	—0.8	4.0	
	M	15	3:37	10:20	16:05	22:50	
			—0.7	4.1	—0.5	3.8	
	Tu	16	4:25	11:15	16:57	23:47	
			—0.5	3.9	—0.2	3.4	
☽	W	17	5:16	12:13	17:56	. . .	
			—0.2	3.8	0.1	. . .	
	Th	18	0:47	6:12	13:16	18:57	
			3.2	0.0	3.6	0.3	
	F	19	1:50	7:10	14:20	20:05	
			3.1	0.2	3.6	0.5	
S	S	20	2:54	8:15	15:20	21:15	
			3.0	0.3	3.6	0.6	
	S	21	3:52	9:22	16:15	22:13	
			3.1	0.3	3.6	0.5	
	M	22	4:46	10:20	17:07	23:02	
			3.2	0.2	3.7	0.3	
	Tu	23	5:32	11:08	17:52	23:40	
			3.4	0.2	3.8	0.2	
	W	24	6:17	11:51	18:35	. . .	
			3.5	0.0	3.8	. . .	
○	Th	25	0:15	7:00	12:29	19:14	
			0.0	3.6	—0.1	3.8	
A	F	26	0:52	7:36	13:07	19:52	
			—0.1	3.6	—0.2	3.7	
	S	27	1:27	8:12	13:42	20:27	
			—0.2	3.6	—0.2	3.6	
E	S	28	2:00	8:47	14:17	21:05	
			—0.2	3.5	—0.2	3.4	
	M	29	2:36	9:25	14:55	21:40	
			—0.2	3.4	—0.2	3.2	
	Tu	30	3:11	10:01	15:33	22:17	
			—0.2	3.3	—0.1	3.1	
	W	31	3:50	10:43	16:20	23:00	
			—0.1	3.2	—0.1	3.0	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	4:32	11:32	17:17	23:49	
			0.0	3.2	0.0	2.8	
☾	F	2	5:23	12:26	18:05	. . .	
			0.1	3.2	0.1	. . .	
	S	3	0:55	6:21	13:30	19:06	
			2.7	0.1	3.2	0.2	
N	S	4	2:02	7:25	14:34	20:18	
			2.8	0.1	3.4	0.1	
	M	5	3:08	8:32	15:36	21:17	
			3.0	0.0	3.6	0.0	
	Tu	6	4:08	9:37	16:33	22:17	
			3.4	—0.3	3.9	—0.3	
	W	7	5:00	10:32	17:28	23:13	
			3.7	—0.5	4.1	—0.5	
	Th	8	5:52	11:32	18:20	. . .	
			4.0	—0.8	4.3	. . .	
P ●	F	9	0:04	6:40	12:24	19:08	
			—0.7	4.3	—1.0	4.4	
E	S	10	0:51	7:27	13:15	19:57	
			—0.9	4.5	—1.1	4.4	
	S	11	1:37	8:15	14:04	20:44	
			—0.9	4.5	—1.0	4.2	
	M	12	2:23	9:05	14:52	21:34	
			—0.8	4.4	—0.8	4.0	
	Tu	13	3:09	9:57	15:42	22:25	
			—0.7	4.3	—0.6	3.7	
	W	14	3:57	10:52	16:34	23:20	
			—0.4	4.0	—0.2	3.4	
	Th	15	4:47	11:48	17:26	. . .	
			—0.2	3.7	0.1	. . .	
☽	F	16	0:20	5:40	12:49	18:25	
			3.1	0.1	3.5	0.4	
S	S	17	1:24	6:40	13:54	19:30	
			3.0	0.3	3.4	0.6	
	S	18	2:30	7:50	14:56	20:40	
			3.0	0.5	3.3	0.7	
	M	19	3:29	9:00	15:52	21:40	
			3.0	0.5	3.4	0.6	
	Tu	20	4:22	10:02	16:44	22:29	
			3.2	0.4	3.5	0.4	
	W	21	5:08	10:50	17:28	23:08	
			3.4	0.3	3.6	0.2	
	Th	22	5:50	11:30	18:08	23:43	
			3.5	0.1	3.6	0.1	
A	F	23	6:30	12:04	18:47	. . .	
			3.7	0.0	3.7	. . .	
○ E	S	24	0:17	7:05	12:40	19:23	
			—0.1	3.7	—0.2	3.6	
	S	25	0:54	7:40	13:15	20:00	
			—0.2	3.7	—0.3	3.6	
	M	26	1:27	8:14	13:52	20:35	
			—0.3	3.7	—0.4	3.4	
	Tu	27	2:02	8:51	14:30	21:12	
			—0.3	3.7	—0.4	3.3	
	W	28	2:42	9:30	15:10	21:52	
			—0.3	3.6	—0.4	3.1	
	Th	29	3:20	10:15	15:57	22:36	
			—0.2	3.4	—0.3	3.0	
	F	30	4:06	11:02	16:46	23:28	
			—0.1	3.3	—0.1	2.8	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.), and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	4:56 0.0	12:00 3.2	17:42 0.0	. . .	
☾	S	2	0:30 2.8	5:57 0.1	13:02 3.3	18:43 0.1	
	M	3	1:41 2.9	7:02 0.1	14:11 3.3	19:47 0.1	
	Tu	4	2:47 3.2	8:12 0.0	15:17 3.5	20:52 0.0	
	W	5	3:45 3.5	9:17 —0.2	16:17 3.8	21:52 —0.2	
	Th	6	4:38 3.9	10:20 —0.5	17:10 4.0	22:47 —0.5	
	F	7	5:28 4.2	11:15 —0.7	18:00 4.2	23:37 —0.7	
P E	S	8	6:16 4.5	12:08 —0.9	18:49 4.2	. . .	
●	S	9	0:25 —0.9	7:03 4.6	12:52 —1.0	19:35 4.2	
	M	10	1:12 —0.9	7:51 4.7	13:44 —1.0	20:22 4.1	
	Tu	11	1:57 —0.8	8:40 4.5	14:32 —0.8	21:10 3.9	
	W	12	2:43 —0.6	9:30 4.3	15:20 —0.5	22:01 3.6	
	Th	13	3:32 —0.4	10:23 4.0	16:07 —0.2	22:56 3.3	
S	F	14	4:18 —0.1	11:18 3.7	16:57 0.1	23:56 3.1	
	S	15	5:14 0.2	12:18 3.4	17:51 0.4	. . .	
☽	S	16	1:00 2.9	6:15 0.5	13:23 3.2	18:50 0.6	
	M	17	2:02 2.9	7:19 0.7	14:25 3.1	19:52 0.6	
	Tu	18	3:00 3.0	8:28 0.7	15:20 3.1	20:51 0.6	
	W	19	3:52 3.2	9:28 0.6	16:11 3.2	21:42 0.5	
A	Th	20	4:38 3.3	10:17 0.4	16:57 3.3	22:25 0.3	
E	F	21	5:20 3.5	10:57 0.2	17:37 3.4	23:05 0.1	
	S	22	5:57 3.7	11:35 0.0	18:16 3.5	23:48 —0.1	
	S	23	6:32 3.8	12:13 —0.2	18:55 3.5	. . .	
○	M	24	0:18 —0.2	7:09 3.9	12:50 —0.4	19:32 3.5	
	Tu	25	0:49 —0.3	7:45 3.9	13:30 —0.5	20:10 3.4	
	W	26	1:35 —0.4	8:23 3.9	14:10 —0.5	20:50 3.4	
	Th	27	2:15 —0.4	9:04 3.8	14:53 —0.5	21:33 3.2	
	F	28	2:57 —0.3	9:50 3.7	15:39 —0.4	22:20 3.1	
N	S	29	3:44 —0.2	10:40 3.5	16:28 —0.2	23:14 3.0	
	S	30	4:35 —0.1	11:37 3.4	17:23 —0.1	. . .	
☾	M	31	0:15 3.0	5:38 0.0	12:40 3.3	18:21 0.0	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	1:19 3.1	6:44 0.1	13:47 3.3	19:23 0.0	
	W	2	2:24 3.3	7:53 0.0	14:55 3.5	20:25 0.0	
	Th	3	3:20 3.6	9:00 —0.1	15:52 3.6	21:26 —0.2	
E	F	4	4:15 4.0	10:00 —0.4	16:47 3.8	22:20 —0.4	
P	S	5	5:06 4.3	11:00 —0.5	17:37 3.9	23:12 —0.6	
	S	6	5:56 4.5	11:51 —0.7	18:26 4.0	. . .	
●	M	7	0:00 —0.7	6:44 4.7	12:39 —0.8	19:13 4.0	
	Tu	8	0:45 —0.7	7:30 4.7	13:25 —0.7	20:00 3.9	
	W	9	1:32 —0.7	8:18 4.5	14:12 —0.6	20:49 3.7	
S	Th	10	2:17 —0.6	9:07 4.3	14:57 —0.4	21:38 3.5	
	F	11	3:04 —0.3	9:57 4.0	15:42 —0.2	22:30 3.3	
	S	12	3:50 —0.1	10:50 3.6	16:27 0.0	23:27 3.1	
	S	13	4:40 0.2	11:46 3.3	17:15 0.3	. . .	
☽	M	14	0:27 3.0	5:35 0.5	12:45 3.1	18:07 0.4	
	Tu	15	1:26 2.9	6:36 0.7	13:43 3.0	19:02 0.5	
	W	16	2:23 3.0	7:40 0.8	14:40 2.9	20:00 0.5	
A	Th	17	3:16 3.1	8:37 0.7	15:32 3.0	20:50 0.4	
E	F	18	4:01 3.3	9:30 0.5	16:20 3.1	21:40 0.3	
	S	19	4:42 3.5	10:17 0.3	17:05 3.2	22:23 0.1	
	S	20	5:21 3.7	11:00 0.1	17:42 3.3	23:05 —0.1	
	M	21	6:00 3.9	11:44 —0.2	18:25 3.4	23:47 —0.3	
○	Tu	22	6:40 4.0	12:26 —0.4	19:05 3.4	. . .	
	W	23	0:30 —0.4	7:22 4.1	13:07 —0.5	19:47 3.5	
	Th	24	1:12 —0.4	8:00 4.1	13:50 —0.6	20:30 3.4	
N	F	25	1:53 —0.5	8:45 4.0	14:36 —0.6	21:16 3.4	
	S	26	2:40 —0.4	9:34 3.9	15:23 —0.5	22:05 3.3	
	S	27	3:30 —0.3	10:23 3.7	16:12 —0.4	23:00 3.2	
	M	28	4:24 —0.2	11:18 3.5	17:02 —0.3	23:56 3.2	
	Tu	29	5:22 —0.1	12:20 3.4	18:00 —0.1	. . .	
☾	W	30	0:58 3.3	6:25 0.0	13:25 3.3	18:57 0.0	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	2:00 3.5	7:34 0.0	14:32 3.3	19:59 —0.1	
P	F	2	3:00 3.7	8:42 0.0	15:30 3.4	20:57 —0.2	
	S	3	3:54 4.0	9:44 —0.1	16:25 3.6	21:54 —0.3	
	S	4	4:48 4.3	10:42 —0.3	17:16 3.7	22:49 —0.4	
	M	5	5:38 4.5	11:35 —0.4	18:06 3.7	23:38 —0.5	
●	Tu	6	6:25 4.5	12:22 —0.5	18:55 3.8	. . .	
	W	7	0:25 —0.5	7:14 4.5	13:07 —0.5	19:42 3.8	
S	Th	8	1:10 —0.5	8:00 4.4	13:52 —0.5	20:29 3.7	
	F	9	1:57 —0.4	8:47 4.2	14:34 —0.3	21:17 3.5	
	S	10	2:41 —0.2	9:33 3.9	15:15 —0.2	22:14 3.3	
	S	11	3:26 0.0	10:20 3.6	15:56 —0.1	22:56 3.2	
	M	12	4:11 0.2	11:10 3.3	16:40 0.1	23:50 3.0	
	Tu	13	4:58 0.5	12:00 3.0	17:25 0.3	. . .	
☽ A	W	14	0:43 2.9	5:47 0.6	12:55 2.9	18:14 0.4	
E	Th	15	1:36 2.9	6:42 0.7	13:50 2.8	19:06 0.4	
	F	16	2:27 3.0	7:40 0.7	14:45 2.8	19:57 0.4	
	S	17	3:17 3.2	8:38 0.6	15:37 2.9	20:49 0.3	
	S	18	4:02 3.3	9:33 0.4	16:27 3.0	21:42 0.1	
	M	19	4:47 3.6	10:25 0.1	17:12 3.2	22:30 0.0	
	Tu	20	5:30 3.9	11:15 —0.1	17:57 3.3	23:19 —0.2	
	W	21	6:15 4.1	12:02 —0.4	18:42 3.5	. . .	
○ N	Th	22	0:04 —0.4	6:59 4.2	12:49 —0.6	19:25 3.6	
	F	23	0:52 —0.5	7:43 4.3	13:34 —0.7	20:11 3.6	
	S	24	1:40 —0.6	8:28 4.2	14:20 —0.7	20:57 3.6	
	S	25	2:27 —0.6	9:16 4.1	15:06 —0.6	21:47 3.6	
	M	26	3:17 —0.5	10:07 3.9	15:54 —0.5	22:37 3.6	
P	Tu	27	4:10 —0.4	11:00 3.7	16:43 —0.4	23:33 3.5	
	W	28	5:05 —0.2	11:57 3.5	17:36 —0.2	. . .	
E ☾	Th	29	0:31 3.5	6:04 —0.1	13:01 3.3	18:32 —0.1	
	F	30	1:31 3.5	7:10 0.1	14:05 3.2	19:30 0.0	
	S	31	2:32 3.7	8:17 0.2	15:07 3.2	20:30 0.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	1:07	7:20	14:08	19:54	
			—0.1	3.0	—0.5	2.3	
N	S	2	2:02	8:07	14:54	20:40	
			—0.2	3.2	—0.6	2.4	
○	S	3	2:48	8:55	15:41	21:29	
			—0.2	3.2	—0.7	2.5	
P	M	4	3:40	9:44	16:29	22:19	
			—0.3	3.2	—0.6	2.6	
	Tu	5	4:35	10:35	17:18	23:09	
			—0.3	3.1	—0.6	2.7	
	W	6	5:30	11:27	18:07	. . .	
			—0.2	2.9	—0.5	. . .	
	Th	7	0:03	6:28	12:22	19:00	
			2.7	—0.2	2.7	—0.4	
E	F	8	0:59	7:30	13:20	19:54	
			2.7	—0.1	2.5	—0.3	
☾	S	9	1:57	8:32	14:24	20:50	
			2.7	—0.1	2.4	—0.2	
	S	10	2:57	9:30	15:25	21:47	
			2.7	0.0	2.2	—0.2	
	M	11	3:55	10:40	16:30	22:44	
			2.7	—0.1	2.1	—0.1	
	Tu	12	4:52	11:40	17:32	23:40	
			2.7	—0.1	2.0	—0.1	
	W	13	5:48	12:35	18:31	. . .	
			2.7	—0.1	2.0	. . .	
	Th	14	0:33	6:42	13:24	19:25	
			—0.1	2.7	—0.1	2.0	
S	F	15	1:26	7:30	14:12	20:12	
			—0.1	2.8	—0.2	2.1	
	S	16	2:13	8:17	14:54	20:52	
			—0.1	2.8	—0.2	2.1	
●	S	17	3:00	8:57	15:35	21:35	
			0.0	2.7	—0.3	2.2	
	M	18	3:42	9:35	16:14	22:13	
			0.0	2.7	—0.2	2.2	
A	Tu	19	4:24	10:12	16:53	22:50	
			0.1	2.6	—0.2	2.2	
	W	20	5:06	10:48	17:34	23:27	
			0.2	2.5	—0.1	2.3	
	Th	21	5:48	11:24	18:10	. . .	
			0.2	2.3	0.0	. . .	
E	F	22	0:06	6:32	12:05	18:52	
			2.3	0.2	2.3	0.0	
	S	23	0:47	7:19	12:48	19:37	
			2.4	0.3	2.2	0.1	
	S	24	1:35	8:13	13:37	20:21	
			2.5	0.3	2.1	0.2	
☽	M	25	2:24	9:00	14:30	21:12	
			2.5	0.2	2.0	0.2	
	Tu	26	3:16	10:07	15:30	22:07	
			2.5	0.2	2.0	0.2	
	W	27	4:11	11:05	16:35	23:04	
			2.6	0.0	2.0	0.1	
	Th	28	5:07	12:01	17:38	23:58	
			2.7	—0.1	2.1	0.0	
N	F	29	6:08	12:58	18:36	. . .	
			2.8	—0.3	2.2	. . .	
	S	30	0:52	6:56	13:44	19:30	
			—0.1	3.0	—0.4	2.4	
	S	31	1:46	7:50	14:32	20:20	
			—0.2	3.1	—0.6	2.5	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○ P	M	1	2:36	8:39	15:18	21:08	
			—0.4	3.1	—0.6	2.7	
	Tu	2	3:28	9:30	16:06	21:59	
			—0.4	3.1	—0.6	2.8	
	W	3	4:20	10:20	16:54	22:48	
			—0.4	3.0	—0.6	2.9	
E	Th	4	5:14	11:10	17:42	23:40	
			—0.4	2.9	—0.5	2.9	
	F	5	6:09	12:03	18:32	. . .	
			—0.3	2.7	—0.4	. . .	
	S	6	0:30	7:08	12:58	19:25	
			2.8	—0.2	2.5	—0.3	
	S	7	1:18	8:07	13:56	20:21	
			2.8	—0.1	2.3	—0.2	
☾	M	8	2:28	9:10	14:57	21:20	
			2.7	—0.1	2.1	—0.1	
	Tu	9	3:27	10:14	16:05	22:21	
			2.6	0.0	2.0	0.0	
	W	10	4:30	11:15	17:12	23:20	
			2.6	0.0	1.9	0.0	
S	Th	11	5:27	12:10	18:10	. . .	
			2.5	0.0	2.0	. . .	
	F	12	0:17	6:22	13:01	19:06	
			0.0	2.6	0.0	2.0	
	S	13	1:07	7:12	13:47	19:51	
			0.0	2.6	—0.1	2.1	
	S	14	1:53	7:55	14:30	20:31	
			0.0	2.6	—0.2	2.2	
A	M	15	2:38	8:36	15:08	21:07	
			0.0	2.6	—0.2	2.3	
○	Tu	16	3:20	9:12	15:46	21:42	
			0.0	2.5	—0.2	2.4	
	W	17	4:00	9:47	16:22	22:15	
			0.0	2.5	—0.2	2.4	
	Th	18	4:37	10:20	16:58	22:50	
			0.0	2.5	—0.1	2.5	
E	F	19	5:17	10:59	17:37	23:27	
			0.1	2.4	0.0	2.5	
	S	20	6:00	11:36	18:11	. . .	
			0.1	2.3	0.0	. . .	
	S	21	0:08	6:44	12:15	18:50	
			2.6	0.1	2.3	0.2	
	M	22	0:53	7:37	13:04	19:39	
			2.6	0.1	2.2	0.2	
	Tu	23	1:46	8:34	13:57	20:34	
			2.6	0.1	2.1	0.2	
☽	W	24	2:42	9:35	15:00	21:32	
			2.6	0.1	2.0	0.2	
	Th	25	3:40	10:36	16:08	22:37	
			2.6	0.0	2.0	0.1	
N	F	26	4:42	11:33	17:14	23:38	
			2.7	—0.1	2.1	0.0	
	S	27	5:40	12:28	18:14	. . .	
			2.8	—0.2	2.3	. . .	
	S	28	0:34	6:37	13:18	19:09	
			—0.2	2.9	—0.4	2.5	
	M	29	1:30	7:30	14:07	19:59	
			—0.3	3.0	—0.5	2.7	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	2:20	8:24	14:54	20:43	
			—0.5	3.0	—0.6	2.9	
	W	2	3:12	9:14	15:40	21:35	
			—0.6	3.0	—0.6	3.0	
E	Th	3	4:03	10:02	16:26	22:23	
			—0.6	2.9	—0.6	3.0	
	F	4	4:55	10:52	17:14	23:12	
			—0.5	2.8	—0.5	3.0	
	S	5	5:49	11:40	18:02	. . .	
			—0.4	2.6	—0.3	. . .	
	S	6	0:04	6:48	12:35	18:57	
			2.9	—0.3	2.4	—0.2	
	M	7	1:00	7:42	13:31	19:52	
			2.7	—0.1	2.2	0.0	
☾	Tu	8	1:57	8:42	14:34	20:56	
			2.6	0.0	2.0	0.1	
S	W	9	2:58	9:45	15:37*	21:58	
			2.5	0.0	2.0	—0.1	
	Th	10	4:01	10:45	16:47	22:59	
			2.4	0.1	1.9	—0.2	
	F	11	5:04	11:40	17:45	23:55	
			2.4	0.1	2.0	0.1	
	S	12	5:58	12:32	18:38	. . .	
			2.4	0.0	2.1	. . .	
	S	13	0:47	6:47	13:17	19:22	
			0.1	2.4	0.0	2.2	
A	M	14	1:34	7:31	13:58	19:58	
			0.0	2.4	—0.1	2.3	
	Tu	15	2:15	8:10	14:34	20:34	
			0.0	2.4	—0.1	2.4	
	W	16	2:54	8:47	15:12	21:07	
			—0.1	2.5	—0.2	2.5	
● E	Th	17	3:32	9:21	15:49	21:41	
			—0.1	2.5	—0.2	2.6	
	F	18	4:10	9:55	16:25	22:14	
			—0.1	2.4	—0.1	2.7	
	S	19	4:50	10:32	17:00	22:52	
			—0.1	2.4	0.0	2.7	
	S	20	5:32	11:09	17:35	23:34	
			—0.1	2.3	0.1	2.7	
	M	21	6:18	11:52	18:15	. . .	
			—0.1	2.3	0.2	. . .	
	Tu	22	0:20	7:07	12:40	19:07	
			2.7	0.0	2.2	0.2	
	W	23	1:12	8:04	13:38	20:08	
			2.6	0.0	2.1	0.2	
N ☽	Th	24	2:10	9:10	14:42	21:10	
			2.6	0.0	2.1	0.2	
	F	25	3:13	10 06	15:50	22:17	
			2.6	0.0	2.1	0.2	
	S	26	4:18	11:07	16:53	23:21	
			2.6	—0.1	2.3	0.0	
	S	27	5:18	12:02	17:52	. . .	
			2.6	—0.2	2.4	. . .	
	M	28	0:18	6:20	12:51	18:45	
			—0.2	2.7	—0.4	2.7	
P	Tu	29	1:13	7:15	13:40	19:37	
			—0.4	2.8	—0.5	2.8	
E	W	30	2:06	8:06	14:25	20:22	
			—0.5	2.9	—0.5	3.0	
○	Th	31	2:57	8:55	15:12	21:10	
			—0.7	2.8	—0.5	3.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	3:45	9:44	16:00	22:00
			—0.6	2.8	—0.5	3.0
	S	2	4:36	10:32	16:46	22:47
			—0.5	2.6	—0.3	3.0
	S	3	5:26	11:20	17:37	23:36
			—0.4	2.5	—0.2	2.8
	M	4	6:20	12:11	18:31	. . .
			—0.3	2.3	0.0	. . .
	Tu	5	0:30	7:15	13:07	19:29
			2.7	—0.1	2.1	0.1
S	W	6	1:27	8:12	14:08	20:30
			2.5	0:0	2.0	0.2
☾	Th	7	2:27	9:12	15:12	21:32
			2.3	0.1	1.9	0.2
	F	8	3:28	10:10	16:17	22:33
			2.3	0.1	2.0	0.3
	S	9	4:30	11:03	17:12	23:27
			2.2	0 1	2.0	0.2
A	S	10	5:24	11:54	18:00	. . .
			2.2	0.1	2.1	. . .
	M	11	0:19	6:15	12:40	18:41
			0.2	2.2	0.0	2.3
	Tu	12	1:05	6:58	13:20	19:20
			0.1	2.3	0.0	2.4
E	W	13	1:44	7:38	14:00	19:55
			0.0	2.3	—0.1	2.5
	Th	14	2:25	8:15	14:36	20:27
			—0.1	2.4	—0.1	2.6
●	F	15	3:04	8:53	15:14	21:04
			—0.2	2.4	—0.1	2.7
	S	16	3:44	9:29	15:51	21:44
			—0.3	2.4	—0.1	2.8
	S	17	4:25	10:08	16:17	22:23
			—0.3	2.4	0.0	2.8
	M	18	5:07	10:50	17:06	23:07
			—0.3	2.3	0.1	2.8
	Tu	19	5:57	11:35	17:50	23:57
			—0.2	2.3	0.2	2.8
N	W	20	6:47	12:29	18:45	. . .
			—0.2	2.2	0.2	. . .
	Th	21	0:50	7:43	13:23	19:47
			2.7	—0.1	2.2	0.2
☽	F	22	1:47	8:43	14:27	20:59
			2.6	—0.1	2.2	0.1
	S	23	2:52	9:42	15:31	21:12
			2.5	—0.1	2.3	0.0
	S	24	3:56	10:37	16:30	23:04
			2.5	—0.1	2.5	—0.1
	M	25	5:00	11:32	17:28	. . .
			2.5	—0.2	2.6	. . .
P	Tu	26	0:02	6:00	12:23	18:20
			—0.2	2.6	—0.3	2.8
E	W	27	0:57	6:55	13:12	19:10
			—0.4	2.6	—0.4	2.9
	Th	28	1:50	7:46	14:00	19:59
			—0.5	2.6	—0.4	3.0
○	F	29	2:40	8:35	14:47	20:47
			—0.6	2.6	—0.4	3.1
	S	30	3:28	9:22	15:35	21:36
			—0.6	2.5	—0.3	3.1
	MAY.					
	S	1	4:12	10:12	16:23	22:23
			—0.5	2.4	—0.2	3.0
	M	2	5:07	11:00	17:13	23:11
			—0.4	2.3	—0.1	2.8
S	Tu	3	6:00	11:50	18:08	. . .
			—0.3	2.2	0.1	. . .
	W	4	0:03	6:48	12:45	19:04
			2.6	—0.2	2.1	0.2
	Th	5	0:56	7:41	13:42	20:04
			2.5	0.0	2.0	0.3
	F	6	1:50	8:36	14:42	21:02
			2.3	0.1	2.0	0.4
☾	S	7	2:50	9:30	15:38	22:00
			2.2	0.1	2.0	0.4
A	S	8	3:48	10:22	16:30	22:56
			2.1	0.1	2.1	0.3
	M	9	4:42	11:09	17:17	23:43
			2.0	0.1	2.2	0.2
	Tu	10	5:31	11:57	17:58	● . .
			2.0	0.1	2.4	. . .
E	W	11	0:30	6:17	12:40	18:37
			0.1	2.1	0.0	2.5
	Th	12	1:12	7:00	13:20	19:15
			0.0	2.2	0.0	2.6
	F	13	1:55	7:42	14:00	19:54
			—0.1	2.2	—0.1	2.8
	S	14	2:37	8:22	14:40	20:34
			—0.3	2.3	—0.1	2.9
●	S	15	3:21	9:03	15:20	21:15
			—0.4	2.3	0.0	3.0
	M	16	4:05	9:48	16:00	22:01
			—0.4	2.3	0.0	3.0
N	Tu	17	4:50	10:32	16:42	22:47
			—0.4	2.3	0.0	3.0
	W	18	5:37	11:20	17:35	23:37
			—0.4	2.4	0.1	2.9
	Th	19	6:30	12:13	18:33	. . .
			—0.3	2.4	0.1	. . .
	F	20	0:30	7:25	13:12	19:38
			2.7	—0.3	2.4	0.1
	S	21	1:27	8:18	14:10	20:42
			2.6	—0.2	2.4	0.1
☽ P	S	22	2:30	9:15	15:10	21:46
			2.5	—0.2	2.5	0.0
	M	23	3:36	10:10	16:10	22:47
			2.4	—0.2	2.6	—0.1
E	Tu	24	4:40	11:04	17:06	23:45
			2.4	—0.2	2.7	—0.2
	W	25	5:38	11:55	17:59	. . .
			2.4	—0.3	2.8	. . .
	Th	26	0:40	6:35	12:47	18:50
			—0.3	2.4	—0.3	2.9
	F	27	1:32	7:27	13:36	19:38
			—0.4	2.4	—0.3	3.0
	S	28	2:23	8:12	14:26	20:27
			—0.5	2.3	—0.3	3.0
○	S	29	3:10	9:05	15:14	21:16
			—0.5	2.3	—0.2	3.0
S	M	30	3:59	9:53	16:02	22:04
			—0.5	2.3	—0.1	2.9
	Tu	31	4:47	10:42	16:53	22:50
			—0.4	2.2	0.0	2.8
	JUNE.					
	W	1	5:32	11:30	17:43	23:36
			—0.3	2.2	0.1	2.6
	Th	2	6:21	12:20	18:37	. . .
			—0.2	2.1	0.2	. . .
	F	3	0:25	7:10	13:12	19:32
			2.4	—0.1	2.1	0.3
	S	4	1:10	7:57	14:05	20:25
			2.2	0.0	2.1	0.4
A	S	5	2:02	8:48	14:53	21:20
			2.1	0.1	2.1	0.4
☾	M	6	2:56	9:37	15:42	22:15
			2.0	0.1	2.2	0.4
E	Tu	7	3:50	10:26	16:30	23:05
			2.0	0.1	2.3	0.3
	W	8	4:42	11:12	17:13	23:53
			1.9	0.1	2.4	0.2
	Th	9	5:32	11:57	17:55	. . .
			2.0	0.1	2.6	. . .
	F	10	0:40	6:22	12:42	18:40
			0.0	2.0	0.0	2.7
	S	11	1:24	7:08	13:24	19:21
			—0.2	2.1	0.0	2.9
	S	12	2:12	7:54	14:06	20:07
			—0.3	2.2	0.0	3.0
●	M	13	2:55	8:40	14:52	20:50
			—0.5	2.3	—0.1	3.1
N	Tu	14	3:43	9:28	15:40	21:41
			—0.5	2.4	—0.1	3.1
	W	15	4:30	10:15	16:27	22:30
			—0.5	2.4	—0.1	3.0
	Th	16	5:19	11:07	17:20	23:20
			—0.5	2.5	—0.1	2.9
P	F	17	6:08	11:57	18:19	. . .
			—0.5	2.5	—0.1	. . .
	S	18	0:12	7:00	12:53	19:19
			2.8	—0.4	2.6	0.0
	S	19	1:10	7:52	13:50	20:22
			2.6	—0.3	2.6	0.0
☽ E	M	20	2:11	8:48	14:47	21:24
			2.5	—0.3	2.7	0.0
	Tu	21	3:14	9:42	15:47	22:28
			2.3	—0.2	2.7	—0.1
	W	22	4:17	10:37	16:42	23:28
			2.2	—0.2	2.7	—0.2
	Th	23	5:17	11:32	17:39	. . .
			2.2	—0.2	2.8	. . .
	F	24	0:24	6:16	12:23	18:31
			—0.3	2.2	—0.2	2.9
	S	25	1:17	7:10	13:16	19:22
			—0.3	2.2	—0.2	2.9
	S	26	2:07	8:00	14:08	20:11
			—0.3	2.2	—0.2	2.9
S ○	M	27	2:54	8:49	14:55	20:56
			—0.4	2.2	—0.1	2.9
	Tu	28	3:40	9:36	15:44	21:43
			—0.5	2.2	—0.1	2.8
	W	29	4:22	10:22	16:22	22:27
			—0.5	2.2	0.0	2.7
	Th	30	5:06	11:06	17:22	23:10
			—0.3	2.2	0.1	2.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:51	11:50	18:07	23:50	E	M	1	6:37	12:35	19:07	. . .		Th	1	0:44	7:20	13:23	20:14
			—0.2	2.2	0.2	2.4				0.0	2.4	0.3	. . .				2.1	0.3	2.5	0.2
	S	2	6:35	12:33	18:57	. . .		Tu	2	0:35	7:23	13:18	19:55	☾	F	2	1:36	8:12	14:17	21:11
			—0.1	2.2	0.3	. . .				2.1	0.1	2.4	0.3				2.0	0.3	2.5	0.2
A	S	3	0:32	7:19	13:10	19:42		W	3	1:20	8:08	14:04	20:48		S	3	2:35	9:14	15:14	22:11
			2.2	0.0	2.2	0.4				2.0	0.2	2.4	0.3				2.0	0.3	2.5	0.1
E	M	4	1:18	8:06	14:05	20:37	☾	Th	4	2:07	8:55	14:55	21:47	N	S	4	3:40	10:15	16:12	23:08
			2.1	0.1	2.3	0.4				2.0	0.3	2.4	0.2				2.0	0.2	2.6	0.0
☾	Tu	5	2:04	8:52	14:53	21:32		F	5	3:06	9:50	15:47	22:42		M	5	4:45	11:11	17:13	. . .
			2.0	0.2	2.3	0.4				1.9	0.3	2.5	0.2				2.1	0.1	2.7	. . .
	W	6	2:54	9:41	15:38	22:24		S	6	4:10	10:43	16:44	23:36		Tu	6	0:02	5:45	12:10	18:10
			1.9	0.2	2.4	0.3				1.9	0.2	2.6	0.0				—0.1	2.2	—0.1	2.7
	Th	7	3:49	10:28	16:30	23:15		S	7	5:12	11:37	17:38	. . .		W	7	0:52	6:40	13:04	19:04
			1.9	0.2	2.5	0.2				2.0	0.1	2.7	. . .				—0.3	2.5	—0.3	2.9
	F	8	4:47	11:18	17:17	. . .	N	M	8	0:28	6:08	12:28	18:32		Th	8	1:40	7:31	13:56	19:55
			1.9	0.2	2.6	. . .				—0.2	2.1	0.0	2.9				—0.4	2.7	—0.4	3.0
	S	9	0:07	5:42	12:03	18:06		Tu	9	1:17	7:04	13:22	19:22	P	F	9	2:28	8:20	14:46	20:46
			0.0	2.0	0.1	2.8				—0.3	2.3	—0.2	3.0	●			—0.5	2.9	—0.6	3.0
	S	10	0:57	6:35	12:54	18:55		W	10	2:06	7:54	14:14	20:14	E	S	10	3:13	9:07	15:37	21:36
			—0.2	2.1	0.0	2.9				—0.5	2.5	—0.3	3.1				—0.6	3.0	—0.6	3.0
N	M	11	1:45	7:28	13:42	19:44	●	Th	11	2:58	8:44	15:03	21:04		S	11	3:58	9:55	16:28	22:25
			—0.3	2.2	—0.1	3.0				—0.5	2.7	—0.4	3.1				—0.6	3.1	—0.6	2.8
	Tu	12	2:32	8:17	14:32	20:32	P	F	12	3:40	9:32	15:55	21:55		M	12	4:46	10:45	17:22	23:15
			—0.5	2.4	—0.2	3.1				—0.6	2.8	—0.4	3.0				—0.5	3.0	—0.5	2.7
●	W	13	3:20	9:07	15:19	21:22		S	13	4:28	10:22	16:47	22:46		Tu	13	5:37	11:36	18:16	. . .
			—0.6	2.5	—0.2	3.1				—0.6	2.9	—0.5	2.9				—0.4	3.0	—0.4	. . .
P	Th	14	4:07	9:54	16:15	22:12	E	S	14	5:13	11:12	17:41	23:37		W	14	0:07	6:30	12:30	19:15
			—0.6	2.6	—0.3	3.1				—0.6	2.9	—0.4	2.8				2.5	—0.2	2.8	—0.2
	F	15	4:55	10:45	17:03	23:02		M	15	6:05	12:04	18:40	. . .		Th	15	1:05	7:27	13:30	20:15
			—0.6	2.7	—0.3	3.0				—0.5	2.9	—0.3	. . .				2.3	—0.1	2.7	—0.1
	S	16	5:42	11:36	18:02	23:55		Tu	16	0:30	6:57	13:00	19:49	☽	F	16	2:07	8:29	14:32	21:18
			—0.5	2.7	—0.2	2.8				2.6	—0.3	2.9	—0.2				2.1	0.0	2.6	0.0
E	S	17	6:32	12:30	19:00	. . .	☽	W	17	1:28	7:53	13:57	20:40	S	S	17	3:12	9:32	15:34	22:19
			—0.5	2.8	—0.2	. . .				2.4	—0.2	2.7	—0.1				2.0	0.1	2.4	0.0
	M	18	0:50	7:25	13:26	20:01		Th	18	2:28	8:52	14:57	21:44		S	18	4:20	10:35	16:38	23:17
			2.6	—0.4	2.8	—0.1				2.2	—0.1	2.7	—0.1				2.0	0.1	2.4	0.0
☽	Tu	19	1:52	8:18	14:22	21:00		F	19	3:34	9:52	15:59	22:46		M	19	5:29	11:35	17:38	. . .
			2.4	—0.3	2.8	—0.1				2.0	0.0	2.6	0.0				2.0	0.1	2.4	. . .
	W	20	2:52	9:15	15:22	22:07	S	S	20	4:40	10:52	17:00	23:45		Tu	20	0:08	6:17	12:28	18:31
			2.2	—0.2	2.7	—0.1				2.0	0.0	2.6	0.0				0.0	2.1	0.0	2.4
	Th	21	3:55	10:13	16:20	23:07		S	21	5:44	11:50	18:00	. . .		W	21	0:56	7:03	13:17	19:17
			2.1	—0.2	2.7	—0.1				2.0	0.0	2.6	. . .				0.0	2.2	0.0	2.4
	F	22	4:56	11:12	17:20	. . .		M	22	0:37	6:40	12:46	18:56		Th	22	1:38	7:40	14:00	19:56
			2.0	—0.1	2.7	. . .				0.0	2.0	0.0	2.6				—0.1	2.3	—0.1	2.4
	S	23	0:06	6:00	12:07	18:15		Tu	23	1:25	7:27	13:35	19:37	A	F	23	2:18	8:18	14:38	20:34
			—0.1	2.0	—0.1	2.7				—0.1	2.1	—0.1	2.6				—0.1	2.4	—0.1	2.4
S	S	24	1:00	6:57	13:00	19:06		W	24	2:09	8:10	14:20	20:20	○	S	24	2:54	8:52	15:17	21:09
			—0.2	2.0	—0.1	2.8				—0.2	2.2	—0.1	2.6	E			—0.1	2.5	—0.1	2.4
	M	25	1:48	7:47	13:52	19:54	○	Th	25	2:48	8:49	15:05	21:00		S	25	3:30	9:24	15:55	21:43
			—0.2	2.1	—0.1	2.8				—0.2	2.3	—0.1	2.5				—0.1	2.6	—0.1	2.4
	Tu	26	2:32	8:33	14:40	20:39	A	F	26	3:27	9:27	15:45	21:37		M	26	4:08	9:57	16:34	22:17
			—0.3	2.2	—0.1	2.7				—0.2	2.4	0.0	2.5				0.0	2.6	—0.1	2.3
○	W	27	3:16	9:14	15:24	21:23		S	27	4:06	10:04	16:25	22:11		Tu	27	4:42	10:34	17:15	22:52
			—0.3	2.2	—0.1	2.7				—0.2	2.5	0.0	2.4				0.0	2.7	—0.1	2.3
	Th	28	3:57	9:57	16:10	22:02	E	S	28	4:44	10:37	17:04	22:46		W	28	5:18	11:14	18:00	23:32
			—0.3	2.3	0.0	2.6				—0.2	2.5	0.0	2.4				0.1	2.6	0.0	2.2
	F	29	4:37	10:36	16:53	22:39		M	29	5:22	11:12	17:46	23:18		Th	29	5:56	11:59	18:46	. . .
			—0.2	2.3	0.1	2.5				0.0	2.5	0.1	2.3				0.2	2.6	0.0	. . .
A	S	30	5:18	11:12	17:35	23:17		Tu	30	5:58	11:52	18:30	23:59		F	30	0:18	6:43	12:49	19:43
			—0.1	2.3	0.2	2.3				0.1	2.5	0.1	2.2				2.1	0.3	2.6	0.1
	S	31	6:00	11:54	18:20	23:55		W	31	6:35	12:34	19:20	. . .							
			—0.1	2.4	0.2	2.2				0.2	2.5	0.2	. . .							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard. 75th Meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	1:12 2.1	7:41 0.3	13:47 2.5	20:42 0.1	
☾	S	2	2:16 2.1	8:44 0.3	14:45 2.5	21:42 0.0	
	M	3	3:19 2.1	9:55 0.2	15:47 2.5	22:38 0.0	
	Tu	4	4:24 2.2	10:54 0.0	16:48 2.5	23:32 —0.1	
	W	5	5:22 2.4	11:53 —0.1	17:50 2.6	. . .	
	Th	6	0:24 —0.3	6:17 2.6	12:47 —0.2	18:47 2.7	
	F	7	1:12 —0.4	7:04 2.8	13:38 —0.5	19:39 2.8	
P E	S	8	2:00 —0.5	7:53 3.0	14:30 —0.6	20:27 2.8	
●	S	9	2:45 —0.5	8:40 3.1	15:20 —0.7	21:16 2.8	
	M	10	3:31 —0.5	9:30 3.1	16:08 —0.6	22:05 2.7	
	Tu	11	4:20 —0.4	10:19 3.1	17:00 —0.5	22:53 2.5	
	W	12	5:10 —0.3	11:10 3.0	17:55 —0.4	23:46 2.4	
	Th	13	6:05 —0.1	12:05 2.8	18:50 —0.3	. . .	
S	F	14	0:43 2.2	7:04 0.0	13:02 2.6	19:48 —0.1	
	S	15	1:45 2.1	8:06 0.1	14:03 2.4	20:48 0.0	
☽	S	16	2:50 2.0	9:10 0.2	15:07 2.3	21:46 0.0	
	M	17	3:55 2.0	10:13 0.2	16:10 2.2	22:42 0.1	
	Tu	18	4:54 2.1	11:10 0.2	17:08 2.2	23:33 0.0	
	W	19	5:44 2.2	12:04 0.1	18:00 2.2	. . .	
A	Th	20	0:20 0.0	6:27 2.3	12:50 0.0	18:46 2.2	
E	F	21	1:03 0.0	7:07 2.4	13:33 0.0	19:25 2.2	
	S	22	1:42 —0.1	7:41 2.5	14:12 —0.1	20:02 2.3	
	S	23	2:20 —0.1	8:15 2.6	14:50 —0.2	20:38 2.3	
○	M	24	2:56 0.0	8:47 2.7	15:27 —0.2	21:14 2.3	
	Tu	25	3:31 0.0	9:24 2.8	16:08 —0.2	21:48 2.3	
	W	26	4:08 0.1	10:04 2.8	16:50 —0.2	22:28 2.3	
	Th	27	4:43 0.2	10:46 2.8	17:37 —0.2	23:04 2.2	
	F	28	5:27 0.2	11:31 2.7	18:25 —0.1	. . .	
N	S	29	0:02 2.2	6:19 0.3	12:23 2.7	19:17 —0.1	
	S	30	0:58 2.2	7:20 0.3	13:20 2.6	20:15 —0.1	
☾	M	31	1:59 2.2	8:28 0.2	14:20 2.5	21:13 —0.1	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	3:02 2.3	9:34 0.1	15:22 2.4	22:10 —0.1	
	W	2	4:03 2.4	10:36 0.0	16:28 2.5	23:03 —0.2	
	Th	3	4:59 2.6	11:35 —0.2	17:30 2.5	23:55 —0.3	
E	F	4	5:52 2.8	12:30 —0.3	18:26 2.5	. . .	
P	S	5	0:44 —0.3	6:42 2.9	13:22 —0.5	19:18 2.6	
	S	6	1:32 —0.4	7:31 3.1	14:12 —0.6	20:08 2.6	
●	M	7	2:19 —0.4	8:20 3.2	15:02 —0.6	20:56 2.5	
	Tu	8	3:07 —0.4	9:09 3.2	15:52 —0.6	21:44 2.5	
	W	9	3:56 —0.3	10:00 3.1	16:40 —0.6	22:35 2.4	
S	Th	10	4:47 —0.2	10:48 3.0	17:32 —0.5	23:27 2.3	
	F	11	5:42 0.0	11:39 2.8	18:26 —0.3	. . .	
	S	12	0:22 2.2	6:40 0.1	12:35 2.5	19:18 —0.1	
	S	13	1:20 2.1	7:40 0.2	13:30 2.4	20:14 0.0	
☽	M	14	2:20 2.1	8:42 0.3	14:31 2.2	21:08 0.0	
	Tu	15	3:19 2.1	9:43 0.3	15:32 2.1	22:02 0.1	
	W	16	4:15 2.2	10:35 0.3	16:25 2.0	22:53 0.1	
A	Th	17	5:02 2.3	11:30 0.2	17:20 2.0	23:40 0.1	
E	F	18	5:44 2.3	12:17 0.1	18:07 2.0	. . .	
	S	19	0:23 0.0	6:18 2.4	13:02 0.0	18:49 2.1	
	S	20	1:05 0.0	7:01 2.6	13:42 —0.1	19:28 2.1	
	M	21	1:45 0.0	7:39 2.7	14:22 —0.2	20:08 2.2	
○	Tu	22	2:23 0.0	8:17 2.8	15:02 —0.3	20:46 2.2	
	W	23	3:00 0.0	8:57 2.9	15:47 —0.4	21:27 2.3	
	Th	24	3:40 0.0	9:39 2.9	16:30 —0.4	22:10 2.3	
N	F	25	4:19 0.1	10:24 2.9	17:15 —0.4	22:57 2.3	
	S	26	5:06 0.1	11:12 2.8	18:03 —0.3	23:46 2.3	
	S	27	6:02 0.1	12:02 2.7	18:54 —0.2	. . .	
	M	28	0:42 2.4	7:02 0.1	12:57 2.6	19:47 —0.2	
	Tu	29	1:40 2.4	8:07 0.1	13:56 2.5	20:42 —0.2	
☾	W	30	2:40 2.5	9:14 0.1	15:02 2.4	21:38 —0.2	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	3:38 2.6	10:16 0.0	16:06 2.3	22:35 —0.2	
P	F	2	4:34 2.7	11:17 —0.1	17:08 2.3	23:27 —0.2	
	S	3	5:28 2.8	12:13 —0.3	18:05 2.3	. . .	
	S	4	0:19 —0.3	6:22 2.9	13:07 —0.4	18:58 2.3	
	M	5	1:08 —0.3	7:04 3.0	13:58 —0.5	19:50 2.3	
●	Tu	6	2:00 —0.3	8:03 3.1	14:47 —0.5	20:39 2.3	
	W	7	2:50 —0.3	8:52 3.1	15:35 —0.5	21:28 2.3	
S	Th	8	3:38 —0.2	9:40 3.0	16:22 —0.5	22:16 2.3	
	F	9	4:28 —0.2	10:27 2.9	17:10 —0.4	23:07 2.2	
	S	10	5:21 0.0	11:15 2.7	17:58 —0.3	23:59 2.2	
	S	11	6:15 0.1	12:05 2.5	18:48 —0.2	. . .	
	M	12	0:50 2.2	7:08 0.2	12:54 2.3	19:38 0.0	
	Tu	13	1:40 2.2	8:07 0.3	13:47 2.1	20:28 0.0	
☽ A	W	14	2:34 2.2	9:02 0.4	14:43 2.0	21:19 0.1	
E	Th	15	3:25 2.2	9:59 0.4	15:37 1.9	22:07 0.1	
	F	16	4:15 2.3	10:51 0.3	16:26 1.9	22:57 0.1	
	S	17	5:00 2.3	11:40 0.2	17:20 1.9	23:43 0.1	
	S	18	5:42 2.5	12:27 0.1	18:09 1.9	. . .	
	M	19	0:18 0.1	6:25 2.6	13:12 —0.1	18:55 2.0	
	Tu	20	1:10 0.1	7:08 2.7	13:56 —0.2	19:39 2.1	
	W	21	1:50 0.0	7:50 2.9	14:39 —0.3	20:23 2.2	
○ N	Th	22	2:35 0.0	8:34 3.0	15:24 —0.4	21:07 2.3	
	F	23	3:19 0.0	9:19 3.0	16:07 —0.5	21:52 2.4	
	S	24	4:05 —0.1	10:07 3.0	16:54 —0.5	22:39 2.5	
	S	25	4:55 —0.1	10:53 2.9	17:42 —0.5	23:30 2.5	
	M	26	5:45 —0.1	11:43 2.8	18:28 —0.4	. . .	
P	Tu	27	0:21 2.6	6:47 0.0	12:36 2.6	19:20 —0.3	
	W	28	1:18 2.6	7:48 0.0	13:35 2.5	20:14 —0.3	
E ☾	Th	29	2:15 2.7	8:52 0.0	14:36 2.3	21:10 —0.2	
	F	30	3:12 2.7	9:55 —0.1	15:42 2.2	22:07 —0.2	
	S	31	4:11 2.7	10:57 —0.1	16:42 2.1	23:03 —0.2	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:57	9:10	15:42	21:39
			—0.3	8.7	—1.1	7.9
N	S	2	3:50	10:00	16:29	22:30
			—0.5	8.9	—1.4	8.2
○	S	3	4:39	10:48	17:17	23:20
			—0.7	9.0	—1.5	8.3
P	M	4	5:30	11:37	18:05	. . .
			—0.8	9.0	—1.5	. . .
	Tu	5	0:10	6:21	12:27	18:56
			8.4	—0.7	8.8	—1.3
	W	6	1:00	7:15	13:19	19:46
			8.3	—0.6	8.5	—1.1
	Th	7	1:52	8:10	14:13	20:40
			8.2	—0.4	8.1	—0.7
E	F	8	2:48	9:11	15:10	21:37
			8.0	—0.1	7.6	—0.3
☾	S	9	3:47	10:17	16:12	22:42
			7.8	0.1	7.2	0.0
	S	10	4:50	11:30	17:22	23:46
			7.6	0.2	6.8	0.2
	M	11	5:55	12:44	18:36	. . .
			7.5	0.1	6.7	. . .
	Tu	12	0:59	7:00	13:48	19:50
			0.3	7.5	—0.1	6.7
	W	13	2:05	8:02	14:47	20:47
			0.3	7.6	—0.3	6.9
	Th	14	2:57	8:57	15:36	21:39
			0.1	7.8	—0.5	7.0
S	F	15	3:47	9:43	16:21	22:23
			0.0	7.9	—0.6	7.1
	S	16	4:32	10:30	17:00	23:01
			0.0	7.9	—0.5	7.1
●	S	17	5:10	11:01	17:39	23:31
			0.1	7.8	—0.4	7.1
	M	18	5:44	11:40	18:10	. . .
			0.2	7.7	—0.3	. . .
A	Tu	19	0:02	6:16	12:10	18:37
			7.1	0.3	7.6	—0.1
	W	20	0:33	6:47	12:44	19:07
			7.3	0.3	7.5	0.0
	Th	21	1:05	7:20	13:20	19:39
			7.4	0.3	7.4	0.0
E	F	22	1:44	8:00	13:59	20:15
			7.5	0.2	7.3	0.0
	S	23	2:26	8:41	14:42	20:57
			7.6	0.2	7.2	0.1
	S	24	3:12	9:30	15:30	21:45
			7.6	0.2	7.1	0.2
☽	M	25	4:01	10:24	16:22	22:37
			7.7	0.2	7.0	0.3
	Tu	26	4:55	11:22	17:20	23:34
			7.7	0.1	7.0	0.3
	W	27	5:53	12:23	18:20	. . .
			7.8	0.0	7.0	. . .
	Th	28	0:35	6:51	13:25	19:22
			0.2	8.0	—0.3	7.2
N	F	29	1:36	7:50	14:25	20:22
			0.1	8.3	—0.6	7.5
	S	30	2:37	8:47	15:19	21:20
			—0.2	8.5	—1.0	7.9
	S	31	3:35	9:42	16:11	22:14
			—0.5	8.8	—1.2	8.2

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	4:28	10:34	17:00	23:05
P			—0.8	8.9	—1.5	8.5
	Tu	2	5:20	11:25	17:50	23:55
			—1.0	8.9	—1.5	8.6
	W	3	6:12	12:14	18:38	. . .
			—1.0	8.8	—1.4	. . .
E	Th	4	0:44	7:02	13:04	19:28
			8.6	—0.9	8.5	—1.1
	F	5	1:35	7:56	13:56	20:20
			8.4	—0.6	8.1	—0.8
	S	6	2:27	8:54	14:52	21:16
			8.2	—0.3	7.6	—0.3
	S	7	3:23	9:57	15:53	22:17
			7.9	0.0	7.0	0.1
☾	M	8	4:22	11:06	16:56	23:25
			7.5	0.2	6.6	0.5
	Tu	9	5:27	12:18	18:12	. . .
			7.3	0.3	6.4	. . .
	W	10	0:35	6:32	13:23	19:27
			0.6	7.2	0.1	6.5
S	Th	11	1:40	7:35	14:24	20:27
			0.5	7.3	—0.1	6.6
	F	12	2:39	8:32	15:14	21:17
			0.3	7.4	—0.2	6.8
	S	13	3:30	9:22	16:00	22:01
			0.1	7.5	—0.3	7.0
	S	14	4:10	10:08	16:37	22:35
			0.1	7.6	—0.1	7.1
A	M	15	4:50	10:37	17:13	23:02
			0.1	7.6	—0.3	7.2
●	Tu	16	5:19	11:12	17:37	23:30
			0.1	7.6	—0.2	7.4
	W	17	5:47	11:42	18:03	. . .
			0.0	7.6	—0.2	. . .
	Th	18	0:00	6:17	12:15	18:32
			7.6	0.0	7.6	—0.2
E	F	19	0:32	6:50	12:50	19:05
			7.8	—0.2	7.7	—0.2
	S	20	1:10	7:27	13:29	19:41
			8.0	—0.2	7.6	—0.2
	S	21	1:53	8:10	14:10	20:22
			8.0	—0.2	7.5	—0.1
	M	22	2:37	8:56	14:59	21:08
			8.0	—0.2	7.4	—0.1
	Tu	23	3:27	9:50	15:50	22:04
			7.9	—0.1	7.2	—0.2
☽	W	24	4:21	10:47	16:48	23:02
			7.8	—0.1	7.1	—0.3
	Th	25	5:21	11:52	17:52	. . .
			7.8	0.0	7.1	. . .
N	F	26	0:08	6:24	12:58	18:57
			—0.3	7.8	0.1	7.2
	S	27	1:17	7:27	14:00	20:02
			—0.4	8.0	—0.4	7.5
	S	28	2:20	8:27	15:00	21:02
			—0.4	8.2	—0.8	7.9
	M	29	3:23	9:25	15:53	21:57
			—0.5	8.5	—1.1	8.3

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	4:17	10:17	16:42	22:48
○			—0.9	8.7	—1.3	8.6
	W	2	5:08	11:06	17:31	23:36
			—1.1	8.8	—1.4	8.8
E	Th	3	5:59	11:57	18:20	. . .
			—1.2	8.7	—1.3	. . .
	F	4	0:24	6:48	12:47	19:08
			8.8	—1.1	8.4	—1.0
	S	5	1:12	7:38	13:37	20:00
			8.6	—0.9	8.0	—0.6
	S	6	2:04	8:33	14:30	20:52
			8.3	—0.5	7.5	—0.1
	M	7	2:55	9:32	15:27	21:50
			7.9	—0.1	7.0	0.3
☾	Tu	8	3:52	10:39	16:32	22:57
			7.4	0.2	6.5	0.7
S	W	9	5:00	11:46	17:42	. . .
			7.1	0.4	6.3	. . .
	Th	10	0:06	6:00	12:54	18:55
			0.8	6.9	0.4	6.3
	F	11	1:15	7:10	13:54	20:00
			0.7	6.9	0.2	6.5
	S	12	2:12	8:05	14:43	20:45
			0.5	7.0	0.0	6.7
	S	13	3:01	8:56	15:27	21:27
			0.3	7.2	0.0	7.0
A	M	14	3:43	9:40	16:03	21:59
			0.2	7.3	—0.1	7.1
	Tu	15	4:20	10:10	16:35	22:25
			0.0	7.4	—0.1	7.4
	W	16	4:45	10:40	17:00	22:54
			—0.1	7.5	—0.1	7.7
●	Th	17	5:16	11:12	17:26	23:27
E			—0.2	7.6	—0.2	8.0
	F	18	5:48	11:45	17:55	. . .
			—0.4	7.8	—0.3	. . .
	S	19	0:03	6:23	12:22	18:32
			8.2	—0.6	7.9	—0.4
	S	20	0:40	7:00	13:00	19:08
			8.3	—0.7	7.8	—0.3
	M	21	1:21	7:42	13:44	19:52
			8.3	—0.6	7.7	—0.2
	Tu	22	2:07	8:29	14:32	20:42
			8.2	—0.5	7.6	0.0
	W	23	2:57	9:21	15:24	21:35
			8.0	—0.3	7.4	0.2
N	Th	24	3:52	10:20	16:24	22:38
☽			7.8	—0.2	7.2	0.4
	F	25	4:53	11:25	17:29	23:50
			7.7	0.0	7.2	0.4
	S	26	5:58	12:34	18:38	. . .
			7.6	—0.1	7.3	. . .
	S	27	1:03	7:06	13:40	19:43
			—0.3	7.6	—0.2	7.6
	M	28	2:10	8:10	14:40	20:44
			—0.1	7.9	—0.6	8.0
P	Tu	29	3:09	9:10	15:36	21:42
			—0.6	8.2	—1.0	8.4
E	W	30	4:04	10:05	16:26	22:30
			—1.0	8.4	—1.2	8.7
○	Th	31	4:56	10:55	17:14	23:17
			—1.2	8.5	—1.2	8.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.		Time and Height of High and Low Water.			
	F	1	5:43 −1.3	11:42 8.4	18:02 −1.1	. . . . . .
	S	2	0:04 8.8	6:32 −1.2	12:30 8.2	18:46 −0.8
	S	3	0:49 8.6	7:20 −0.9	13:18 7.8	19:38 −0.4
	M	4	1:38 8.2	8:11 −0.5	14:08 7.3	20:26 0.1
	Tu	5	2:37 7.8	9:05 −0.1	15:01 6.9	21:22 0.6
S	W	6	3:21 7.3	10:05 0.3	16:00 6.5	22:22 0.9
☾	Th	7	4:18 6.9	11:10 0.5	17:07 6.2	23:36 1.0
	F	8	5:25 6.6	12:14 0.6	18:12 6.2	. . . . . .
	S	9	0:41 1.0	6:32 6.6	13:13 0.5	19:12 6.4
A	S	10	1:39 0.8	7:22 6.6	14:04 0.4	20:00 6.7
	M	11	2:30 0.5	8:15 6.8	14:47 0.3	20:38 7.0
	Tu	12	3:08 0.2	9:00 7.0	15:22 0.2	21:14 7.3
E	W	13	3:44 0.0	9:32 7.2	15:52 0.0	21:47 7.7
	Th	14	4:14 −0.3	10:07 7.4	16:22 −0.1	22:22 8.0
●	F	15	4:47 −0.5	10:42 7.7	16:52 −0.3	22:57 8.4
	S	16	5:20 −0.8	11:18 7.9	17:26 −0.4	23:35 8.6
	S	17	6:00 −0.9	11:56 8.0	18:02 −0.5	. . . . . .
	M	18	0:14 8.6	6:37 −1.0	12:37 8.0	18:44 −0.4
	Tu	19	0:57 8.6	7:20 −1.0	13:21 7.9	19:30 −0.3
N	W	20	1:42 8.4	8:07 −0.8	14:12 7.7	20:18 −0.1
	Th	21	2:33 8.1	9:01 −0.5	15:05 7.6	21:15 0.2
☽	F	22	3:28 7.8	9:59 −0.2	16:05 7.3	22:20 0.4
	S	23	4:32 7.5	11:02 0.0	17:10 7.3	23:34 0.5
	S	24	5:38 7.3	12:14 0.0	18:20 7.4	. . . . . .
	M	25	0:50 0.3	6:47 7.3	13:19 0.2	19:27 7.7
P	Tu	26	1:57 −0.1	7:52 7.5	14:21 −0.4	20:27 8.1
E	W	27	2:58 −0.5	8:55 7.8	15:17 −0.7	21:20 8.5
	Th	28	3:53 −1.0	9:50 8.0	16:08 −0.9	22:10 8.7
○	F	29	4:42 −1.2	10:40 8.1	16:55 −0.9	22:57 8.8
	S	30	5:30 −1.2	11:27 8.0	17:40 −0.7	23:44 8.7

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	6:18 −1.1	12:14 7.8	18:30 −0.4	. . . . . .
	M	2	0:30 8.4	7:02 −0.9	13:00 7.5	19:15 −0.1
S	Tu	3	1:14 8.1	7:47 −0.5	13:47 7.2	20:00 0.3
	W	4	2:00 7.7	8:37 −0.1	14:34 6.8	20:52 0.7
	Th	5	2:48 7.2	9:28 0.3	15:27 6.5	21:48 1.0
	F	6	3:40 6.8	10:25 0.6	16:22 6.3	22:48 1.2
☾	S	7	4:37 6.5	11:24 0.8	17:20 6.3	23:54 1.2
A	S	8	5:38 6.4	12:18 0.8	18:14 6.4	. . . . . .
	M	9	0:50 1.0	6:32 6.4	13:07 0.7	19:00 6.7
	Tu	10	1:40 0.7	7:27 6.5	13:52 0.6	19:49 7.1
E	W	11	2:23 0.4	8:10 6.7	14:30 0.4	20:28 7.5
	Th	12	3:02 0.0	8:50 7.0	15:07 0.1	21:07 7.9
	F	13	3:39 −0.3	9:30 7.4	15:45 −0.1	21:47 8.3
	S	14	4:11 −0.7	10:10 7.7	16:19 −0.3	22:27 8.6
●	S	15	4:54 −1.0	10:52 7.9	17:00 −0.5	23:08 8.8
	M	16	5:32 −1.2	11:32 8.1	17:40 −0.5	23:52 8.8
N	Tu	17	6:16 −1.2	12:17 8.1	18:23 −0.5	. . . . . .
	W	18	0:36 8.7	7:02 −1.1	13:06 8.1	19:10 −0.3
	Th	19	1:27 8.5	7:48 −0.9	13:55 7.9	20:05 −0.1
	F	20	2:15 8.1	8:42 −0.6	14:48 7.7	21:00 0.1
	S	21	3:10 7.8	9:40 −0.3	15:48 7.5	22:07 0.3
☽ P	S	22	4:12 7.4	10:44 −0.1	16:53 7.4	23:24 0.4
	M	23	5:20 7.2	11:51 −0.1	18:02 7.5	. . . . . .
E	Tu	24	0:37 0.3	6:32 7.1	13:00 0.0	19:07 7.7
	W	25	1:45 −0.1	7:38 7.2	14:02 −0.2	20:08 8.0
	Th	26	2:46 −0.5	8:42 7.4	14:58 −0.4	21:02 8.3
	F	27	3:40 −0.8	9:37 7.5	15:50 −0.5	21:52 8.5
	S	28	4:28 −1.0	10:29 7.6	16:40 −0.5	22:40 8.6
○	S	29	5:14 −1.1	11:12 7.6	17:26 −0.4	23:24 8.5
S	M	30	6:00 −1.0	12:00 7.4	18:10 −0.2	. . . . . .
	Tu	31	0:07 8.3	6:45 −0.7	12:40 7.3	18:52 0.1

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	0:50 7.9	7:27 −0.4	13:22 7.1	19:35 0.4
	Th	2	1:35 7.6	8:06 −0.1	14:05 6.9	20:20 0.7
	F	3	2:17 7.2	8:52 0.3	14:50 6.7	21:08 1.0
	S	4	3:00 6.9	9:37 0.5	15:34 6.7	22:00 1.1
A	S	5	3:48 6.6	10:23 0.8	16:23 6.6	22:54 1.1
☾	M	6	4:40 6.4	11:12 0.9	17:14 6.7	23:51 1.0
E	Tu	7	5:34 6.4	12:05 0.8	18:05 7.0	. . . . . .
	W	8	0:42 0.8	6:27 6.5	12:50 0.7	18:56 7.3
	Th	9	1:32 0.4	7:18 6.7	13:40 0.5	19:43 7.7
	F	10	2:19 0.0	8:09 7.0	14:23 0.2	20:31 8.1
	S	11	3:03 −0.4	8:57 7.3	15:07 −0.1	21:15 8.4
	S	12	3:41 −0.8	9:42 7.7	15:52 −0.3	22:00 8.7
●	M	13	4:30 −1.1	10:29 8.0	16:35 −0.5	22:45 8.9
N	Tu	14	5:11 −1.3	11:12 8.2	17:21 −0.6	23:31 8.9
	W	15	5:58 −1.4	12:01 8.3	18:10 −0.6	. . . . . .
	Th	16	0:19 8.8	6:45 −1.3	12:49 8.3	19:00 −0.5
P	F	17	1:07 8.6	7:33 −1.1	13:39 8.2	19:52 −0.3
	S	18	2:00 8.2	8:26 −0.8	14:34 8.0	20:52 0.0
	S	19	2:55 7.8	9:24 −0.4	15:32 7.8	21:56 0.2
☽ E	M	20	3:55 7.4	10:24 −0.1	16:35 7.6	23:07 0.3
	Tu	21	5:00 7.0	11:31 0.1	17:40 7.6	. . . . . .
	W	22	0:23 0.2	6:12 6.9	12:37 0.1	18:45 7.7
	Th	23	1:30 0.0	7:23 6.9	13:45 0.0	19:48 7.9
	F	24	2:33 −0.4	8:31 7.0	14:43 −0.1	20:44 8.1
	S	25	3:28 −0.7	9:28 7.2	15:37 −0.2	21:36 8.2
	S	26	4:17 −0.8	10:21 7.3	16:28 −0.2	22:24 8.3
S ○	M	27	5:03 −0.9	11:03 7.3	17:12 −0.1	23:10 8.2
	Tu	28	5:42 −0.8	11:45 7.3	17:54 0.0	23:50 8.0
	W	29	6:25 −0.6	12:20 7.2	18:35 0.2	. . . . . .
	Th	30	0:27 7.8	7:00 −0.3	12:57 7.1	19:10 0.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	1:07 7.5	7:36 −0.1	13:31 7.1	19:48 0.6
	S	2	1:42 7.3	8:11 0.2	14:12 7.0	20:28 0.7
A	S	3	2:24 7.0	8:48 0.4	14:50 7.0	21:11 0.8
E	M	4	3:07 6.9	9:29 0.5	15:34 7.1	21:54 0.8
☾	Tu	5	3:52 6.7	10:14 0.6	16:24 7.2	22:50 0.7
	W	6	4:43 6.6	11:02 0.7	17:15 7.3	23:44 0.6
	Th	7	5:37 6.7	11:54 0.6	18:08 7.5	. . . . . .
	F	8	0:42 0.3	6:32 6.8	12:50 0.5	19:02 7.7
	S	9	1:37 0.0	7:28 7.0	13:44 0.2	19:56 8.1
	S	10	2:32 −0.4	8:25 7.3	14:38 0.0	20:47 8.4
N	M	11	3:19 −0.8	9:18 7.7	15:30 −0.3	21:37 8.7
	Tu	12	4:07 −1.1	10:08 8.1	16:17 −0.6	22:27 8.9
●	W	13	4:54 −1.3	10:54 8.3	17:07 −0.8	23:15 8.9
P	Th	14	5:42 −1.4	11:44 8.3	17:58 −0.8	. . . . . .
	F	15	0:04 8.8	6:30 −1.4	12:35 8.5	18:47 −0.7
	S	16	0:53 8.6	7:17 −1.2	13:24 8.4	19:40 −0.6
E	S	17	1:43 8.3	8:08 −0.9	14:16 8.3	20:38 −0.3
	M	18	2:38 7.9	9:02 −0.5	15:13 8.0	21:40 0.0
☽	Tu	19	3:36 7.4	10:01 −0.1	16:13 7.8	22:49 0.2
	W	20	4:41 7.0	11:07 0.2	17:17 7.6	. . . . . .
	Th	21	0:02 0.2	5:52 6.7	12:15 0.3	18:22 7.5
	F	22	1:13 0.1	7:07 6.6	13:28 0.3	19:28 7.6
	S	23	2:18 −0.2	8:18 6.8	14:30 0.2	20:30 7.8
S	S	24	3:14 −0.5	9:18 7.0	15:25 0.0	21:22 7.9
	M	25	4:01 −0.7	10:07 7.2	16:15 −0.1	22:14 8.0
	Tu	26	4:46 −0.7	10:48 7.2	16:58 −0.1	22:50 7.9
○	W	27	5:26 −0.6	11:26 7.2	17:40 −0.1	23:27 7.8
	Th	28	6:01 −0.5	11:59 7.2	18:12 0.1	. . . . . .
	F	29	0:02 7.7	6:32 −0.2	12:25 7.3	18:43 0.2
A	S	30	0:35 7.5	7:03 −0.1	12:57 7.3	19:15 0.3
	S	31	1:10 7.4	7:31 0.0	13:32 7.4	19:50 0.3

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	1:46 7.2	8:02 0.2	14:10 7.5	20:30 0.3
	Tu	2	2:26 7.1	8:43 0.2	14:58 7.5	21:12 0.3
	W	3	3:13 7.0	9:26 0.4	15:40 7.5	22:03 0.3
☾	Th	4	4:02 6.9	10:17 0.5	16:31 7.5	23:00 0.3
	F	5	4:55 6.8	11:10 0.5	17:27 7.6	23:59 0.2
	S	6	5:56 6.8	12:11 0.5	18:26 7.7	. . . . . .
	S	7	1:00 0.0	6:56 7.0	13:11 0.3	19.24 8.0
N	M	8	2:00 −0.3	7:55 7.3	14:12 0.0	20:22 8.2
	Tu	9	2:53 −0.7	8:55 7.7	15:11 −0.3	21:12 8.5
	W	10	3:45 −1.0	9:47 8.1	16:02 −0.7	22:09 8.8
●	Th	11	4:35 −1.3	10:38 8.5	16:55 −1.0	23:00 8.9
P	F	12	5:22 −1.5	11:27 8.7	17:45 −1.1	23:50 8.8
	S	13	6:10 −1.4	12:16 8.8	18:35 −1.1	. . . . . .
E	S	14	0:37 8.7	7:00 −1.2	13:05 8.7	19:28 −0.9
	M	15	1:29 8.3	7:49 −1.0	13:59 8.5	20:21 −0.6
	Tu	16	2:20 7.9	8:42 −0.5	14:50 8.2	21:22 −0.3
☽	W	17	3:17 7.3	9:41 −0.1	15:48 7.8	22:28 0.1
	Th	18	4:20 6.8	10:45 0.3	16:58 7.5	23:41 0.2
	F	19	5:37 6.5	11:58 0.6	18:00 7.3	. . . . . .
S	S	20	0:53 0.2	6:54 6.5	13:10 0.5	19:08 7.3
	S	21	1:57 0.0	8:03 6.7	14:17 0.2	20:09 7.4
	M	22	2:52 −0.2	9:00 6.9	15:10 0.1	21:03 7.6
	Tu	23	3:42 −0.4	9:48 7.1	15:57 −0.1	21:52 7.7
	W	24	4:24 −0.5	10:23 7.2	16:39 −0.1	22:32 7.7
○	Th	25	5:01 −0.4	10:55 7.3	17:17 −0.1	23:03 7.6
A	F	26	5:32 −0.3	11:23 7.4	17:45 0.0	23:35 7.6
	S	27	6:00 −0.2	11:52 7.5	18:11 0.0	. . . . . .
E	S	28	0:07 7.5	6:25 −0.1	12:22 7.7	18:43 −0.1
	M	29	0:39 7.5	6:54 0.0	12:57 7.8	19:15 −0.1
	Tu	30	1:13 7.5	7:25 0.0	13:35 7.9	19:54 −0.1
	W	31	1:52 7.4	8:03 −0.1	14:18 7.9	20:37 −0.1

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	2:37 7.3	8:48 0.2	15:02 7.8	21:26 0.0
☾	F	2	3:26 7.2	9:39 0.3	15:55 7.7	22:22 0.1
	S	3	4:21 7.1	10:35 0.4	16:52 7.6	23:23 0.1
N	S	4	5:25 7.0	11:39 0.4	17:55 7.6	. . . . . .
	M	5	0:25 0.0	6:27 7.2	12:46 0.3	18:57 7.8
	Tu	6	1:31 −0.2	7:30 7.4	13:53 0.0	20:00 8.0
	W	7	2:30 −0.6	8:34 7.8	14:54 −0.4	21:00 8.3
	Th	8	3:23 −0.9	9:27 8.3	15:50 −0.8	21:52 8.6
P ●	F	9	4:15 −1.2	10:20 8.7	16:42 −1.1	22:42 8.7
E	S	10	5:04 −1.4	11:09 8.9	17:31 −1.3	23:32 8.7
	S	11	5:50 −1.4	11:57 9.0	18:20 −1.3	. . . . . .
	M	12	0:20 8.6	6:37 −1.2	12:47 8.9	19:12 −1.1
	Tu	13	1:10 8.2	7:28 −0.8	13:35 8.6	20:04 −0.8
	W	14	2:02 7.8	8:20 −0.3	14:27 8.2	21:01 −0.4
	Th	15	3:00 7.2	9:20 0.1	15:24 7.7	22:04 0.0
☽	F	16	4:01 6.7	10:24 0.6	16:25 7.3	23:16 0.3
S	S	17	5:11 6.4	11:37 0.8	17:32 7.0	. . . . . .
	S	18	0:26 0.3	6:30 6.4	12:50 0.7	18:45 7.0
	M	19	1:32 0.1	7:35 6.6	13:53 0.4	19:45 7.1
	Tu	20	2:25 0.0	8:32 6.8	14:47 0.2	20:42 7.2
	W	21	3:14 −0.2	9:17 7.1	15:35 0.0	21:25 7.3
	Th	22	3:55 −0.2	9:52 7.2	16:12 −0.1	22:13 7.4
A	F	23	4:29 −0.2	10:20 7.4	16:47 −0.2	22:34 7.4
○ E	S	24	4:54 −0.1	10:50 7.6	17:14 −0.2	23:04 7.5
	S	25	5:25 −0.1	11:17 7.8	17:40 −0.3	23:35 7.6
	M	26	5:47 −0.1	11:50 8.0	18:11 −0.4	. . . . . .
	Tu	27	0:08 7.7	6:20 −0.1	12:25 8.2	18:45 −0.5
	W	28	0:45 7.7	6:53 −0.2	13:04 8.2	19:25 −0.5
	Th	29	1:27 7.6	7:33 −0.1	13:47 8.1	20:10 −0.4
	F	30	2:12 7.5	8:18 0.1	14:33 8.0	20:57 −0.3

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.: E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	3:00	9:10	15:25	21:52		Tu	1	4:37	11:00	17:02	23:32	E	Th	1	5:22	11:52	17:48	. . .
			7.4	0.2	7.8	—0.1				7.4	0.4	7.4	0.0				7.7	0.3	7.1	. . .
☾	S	2	3:56	10:10	16:24	22:52		W	2	5:45	12:09	18:10	. . .	P	F	2	0:17	6:27	13:03	18:57
			7.3	0.4	7.6	0.0				7.4	0.3	7.3	. . .				0.0	7.2	0.0	7.1
	M	3	4:58	11:15	17:25	. . .		Th	3	0:40	6:50	13:20	19:10		S	3	1:21	7:29	14:10	20:04
			7.2	0.4	7.5	. . .				0.0	7.7	0.0	7.4				—0.1	8.0	—0.3	7.2
	Tu	4	0:00	6:02	12:28	18:32	E	F	4	1:45	7:52	14:25	20:20		S	4	2:22	8:28	15:08	21:05
			0.0	7.8	0.4	7.5				—0.3	8.0	—0.4	7.6				—0.2	8.3	—0.7	7.4
	W	5	1:04	7:10	13:37	19:37	P	S	5	2:45	8:48	15:21	21:19		M	5	3:19	9:22	16:00	22:00
			—0.1	7.5	0.0	7.7				—0.5	8.4	—0.8	7.9				—0.4	8.5	—1.0	7.6
	Th	6	2:07	8:12	14:40	20:37		S	6	3:36	9:40	16:12	22:10	●	Tu	6	4:12	10:12	16:50	22:50
			—0.4	8.0	—0.4	8.0				—0.7	8.7	—1.2	8.0				—0.5	8.7	—1.1	7.6
	F	7	3:03	9:09	15:38	21:38	●	M	7	4:27	10:30	17:02	23:00		W	7	5:00	11:00	17:40	23:37
			—0.8	8.4	—0.9	8.2				—0.9	8.9	—1.3	8.0				—0.4	8.6	—1.1	7.6
P E	S	8	3:56	10:00	16:28	22:29		Tu	8	5:14	11:17	17:52	23:50	S	Th	8	5:48	11:47	18:25	. . .
			—1.0	8.8	—1.2	8.4				—0.8	8.9	—1.3	8.0				—0.3	8.5	—1.0	. . .
●	S	9	4:44	10:50	17:18	23:16		W	9	6:07	12:05	18:40	. . .		F	9	0:22	6:32	12:31	19:08
			—1.2	9.0	—1.4	8.5				—0.6	8.7	—1.1	. . .				7.5	—0.1	8.2	—0.7
	M	10	5:35	11:37	18:05	. . .	S	Th	10	0:37	6:50	12:52	19:27		S	10	1:06	7:21	13:17	19:52
			—1.1	9.0	—1.4	. . .				7.7	—0.3	8.4	—0.8				7.3	0.2	7.8	—0.4
	Tu	11	0:04	6:20	12:24	18:55		F	11	1:25	7:40	13:39	20:19		S	11	1:50	8:08	14:00	20:37
			8.3	—0.9	8.9	—1.2				7.4	0.1	8.0	—0.4				7.1	0.5	7.5	0.0
	W	12	0:58	7:08	13:15	19:46		S	12	2:15	8:35	14:30	21:12		M	12	2:35	8:56	14:47	21:24
			8.0	—0.6	8.6	—0.9				7.0	0.5	7.5	0.0				6.9	0.8	7.0	0.3
	Th	13	1:45	8:00	14:04	20:41		S	13	3:09	9:37	15:22	22:07		Tu	13	3:22	9:49	15:38	22:11
			7.6	—0.1	8.1	—0.8				6.7	0.8	7.1	0.3				6.7	1.0	6.7	0.6
S	F	14	2:37	8:55	14:57	21:40	☽	M	14	4:06	10:32	16:24	23:05	☽ A	W	14	4:11	10:44	16:28	23:00
			7.2	0.3	7.6	0.0				6.5	1.0	6.7	0.6				6.8	1.1	6.4	0.8
	S	15	3:38	9:59	15:55	22:43		Tu	15	5:07	11:38	17:30	. . .	E	Th	15	5:00	11:37	17:20	23:49
			6.7	0.7	7.1	0.3				6.4	1.0	6.4	. . .				6.7	1.0	6.3	0.9
☽	S	16	4:43	11:10	17:00	23:54		W	16	0:04	6:02	12:40	18:24		F	16	5:52	12:30	18:15	. . .
			6.4	0.9	6.8	0.4				0.7	6.5	0.9	6.4				6.8	0.9	6.3	. . .
	M	17	5:52	12:20	18:07	. . .	A	Th	17	0:56	6:57	13:33	19:15		S	17	0:39	6:40	13:22	19:05
			6.4	0.8	6.7	. . .				0.7	6.7	0.7	6.4				0.8	7.0	0.7	6.4
	Tu	18	0:52	6:56	13:24	19:11	E	F	18	1:42	7:41	14:18	20:06		S	18	1:24	7:26	14:06	19:52
			0.4	6.5	0.7	6.7				0.6	7.0	0.4	6.6				0.7	7.4	0.3	6.7
	W	19	1:48	7:50	14:16	20:07		S	19	2:22	8:17	14:55	20:41		M	19	2:08	8:12	14:50	20:40
			0.3	6.7	0.4	6.8				0.5	7.3	0.2	6.8				0.5	7.7	0.0	7.0
A	Th	20	2:34	8:32	15:00	20:50		S	20	2:57	8:57	15:32	21:20		Tu	20	2:52	8:57	15:32	21:24
			0.2	7.0	0.2	6.9				0.3	7.6	—0.1	7.0				0.2	8.1	—0.4	7.3
E	F	21	3:14	9:07	15:40	21:32		M	21	3:34	9:34	16:04	21:57		W	21	3:34	9:42	16:12	22:08
			0.1	7.2	0.0	7.1				0.2	8.0	—0.4	7.4				0.0	8.4	—0.8	7.7
	S	22	3:50	9:40	16:10	22:02	○	Tu	22	4:06	10:11	16:40	22:35	○ N	Th	22	4:18	10:27	16:52	22:52
			0.1	7.5	—0.1	7.2				0.0	8.3	—0.7	7.6				—0.3	8.6	—1.0	8.0
	S	23	4:16	10:10	16:40	22:32		W	23	4:45	10:52	17:17	23:16		F	23	5:00	11:11	17:37	23:37
			0.0	7.8	—0.3	7.4				—0.2	8.5	—0.9	7.8				—0.5	8.8	—1.2	8.2
○	M	24	4:42	10:45	17:10	23:08		Th	24	5:22	11:32	17:57	23:59		S	24	5:47	11:56	18:20	. . .
			0.0	8.1	—0.5	7.6				—0.3	8.6	—1.1	8.0				—0.6	8.7	—1.2	. . .
	Tu	25	5:17	11:18	17:42	23:40	N	F	25	6:04	12:15	18:40	. . .		S	25	0:24	6:35	12:43	19:07
			—0.1	8.3	—0.7	7.7				—0.4	8.6	—1.0	. . .				8.3	—0.5	8.6	—1.1
	W	26	5:48	11:58	18:20	. . .		S	26	0:40	6:48	13:00	19:26		M	26	1:13	7:24	13:32	19:55
			—0.2	8.4	—0.8	. . .				8.0	—0.3	8.5	—0.9				8.3	—0.5	8.3	—0.9
	Th	27	0:18	6:24	12:37	19:00		S	27	1:30	7:37	13:48	20:14	P	Tu	27	2:05	8:18	14:24	20:47
			7.8	—0.3	8.4	—0.8				8.0	—0.2	8.2	—0.7				8.2	—0.3	8.0	—0.6
	F	28	1:02	7:09	13:20	19:45		M	28	2:20	8:32	14:42	21:08		W	28	3:00	9:12	15:20	21:44
			7.8	—0.2	8.3	—0.7				7.9	—0.1	7.9	—0.5				8.1	—0.1	7.6	—0.3
N	S	29	1:47	7:54	14:10	20:35		Tu	29	3:18	9:33	15:38	22:05	E ☾	Th	29	3:57	10:23	16:20	22:47
			7.7	0.0	8.1	—0.5				7.8	0.1	7.6	—0.2				7.9	0.1	7.3	0.0
	S	30	2:42	8:50	15:02	21:27	☾	W	30	4:17	10:40	16:41	23:10		F	30	5:00	11:35	17:28	23:56
			7.6	0.0	7.8	—0.3				7.7	0.3	7.3	0.0				7.7	0.2	7.0	0.2
☾	M	31	3:36	9:49	16:00	22:30									S	31	6:05	12:47	18:40	. . .
			7.5	0.3	7.5	—0.1											7.7	0.1	6.8	. . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	6:04 5.3	12:43 —0.5	18:30 4.3	. . . . . .
N	S	2	0:45 —0.4	6:55 5.5	13:35 —0.9	19:25 4.5
○	S	3	1:38 —0.6	7:45 5.6	14:30 —1.0	20:16 4.6
P	M	4	2:28 —0.6	8:38 5.6	15:14 —1.1	21:08 4.7
	Tu	5	3:20 —0.5	9:28 5.5	16:05 —1.0	22:02 4.7
	W	6	4:15 —0.4	10:20 5.3	16:55 —0.9	22:55 4.6
	Th	7	5:11 —0.3	11:12 5.0	17:46 —0.7	23:52 4.6
E	F	8	6:10 —0.1	12:07 4.6	18:42 —0.6	. . . . . .
☾	S	9	0:50 4.5	7:12 0.0	13:06 4.4	19:35 —0.4
	S	10	1:52 4.5	8:18 0.1	14:06 4.1	20:35 —0.3
	M	11	2:50 4.5	9:21 0.1	15:11 3.9	21:32 —0.3
	Tu	12	3:48 4.6	10:20 0.1	16:15 3.9	22:27 —0.3
	W	13	4:45 4.7	11:17 0.0	17:13 3.9	23:22 —0.3
	Th	14	5:37 4.8	12.08 —0.1	18:08 3.9	. . . . . .
S	F	15	0:12 —0.3	6:25 4.8	12:56 —0.2	18:56 4.0
	S	16	1:00 —0.3	7:10 4.9	13:40 —0.3	19:38 3.9
●	S	17	1:44 —0.2	7:50 4.8	14:20 —0.3	20:16 3.9
	M	18	2:24 0.0	8:27 4.7	15:00 —0.3	20:52 3.9
A	Tu	19	3:02 0.1	9:03 4.6	15:34 —0.2	21:22 3.9
	W	20	3:37 0.3	9:32 4.5	16:10 —0.1	21:52 3.9
	Th	21	4:10 0.5	10:02 4.4	16:43 0.1	22:24 4.0
E	F	22	4:44 0.6	10:33 4.3	17:17 0.2	23:02 4.1
	S	23	5:23 0.6	11:08 4.2	17:52 0.3	23:44 4.2
	S	24	6:10 0.6	11:52 4.1	18:36 0.3	. . . . . .
☽	M	25	0:35 4.3	7:06 0.6	12:42 4.0	19:26 0.4
	Tu	26	1:34 4.4	8:10 0.5	13:45 3.9	20:24 0.3
	W	27	2:36 4.5	9:20 0.4	14:50 3.9	21:28 0.2
	Th	28	3:40 4.7	10:26 0.1	16:02 3.9	22:30 0.0
N	F	29	4:43 4.9	11:25 —0.2	17:10 4.1	23:33 —0.2
	S	30	5:42 5.2	12:21 —0.6	18:12 4.4	. . . . . .
	S	31	0:28 —0.5	6:37 5.4	13:14 —0.9	19:08 4.6

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○ P	M	1	1:25 —0.8	7:30 5.6	14:04 —1.1	20:02 4.8
	Tu	2	2:15 —0.9	8:22 5.6	14:52 —1.2	20:52 5.0
	W	3	3:08 —0.8	9:12 5.6	15:42 —1.2	21:45 5.0
E	Th	4	4:00 —0.7	10:02 5.4	16:30 —1.1	22:36 5.0
	F	5	4:52 —0.6	10:54 5.0	17:20 —0.8	23:28 4.9
	S	6	5:50 —0.3	11:45 4.7	18:12 —0.6	. . . . . .
	S	7	0:22 4.6	6:50 —0.1	12:40 4.3	19:07 —0.3
☾	M	8	1:20 4.5	7:51 0.1	13:40 3.9	20:04 —0.1
	Tu	9	2:21 4.4	8:54 0.2	14:43 3.7	21:04 0.0
	W	10	3:21 4.4	9:55 0.3	15:50 3.6	22:02 0.0
S	Th	11	4:18 4.4	10:52 0.2	16:52 3.7	22:59 0.0
	F	12	5:12 4.5	11:42 0.1	17:45 3.8	23:50 —0.1
	S	13	6:00 4.6	12:30 0.0	18:34 3.8	. . . . . .
	S	14	0:37 —0.1	6:45 4.6	13:14 —0.2	19:14 3.9
A	M	15	1:20 —0.1	7:25 4.6	13:53 —0.2	19:50 4.0
●	Tu	16	2:00 0.0	8:00 4.6	14:29 —0.2	20:21 4.1
	W	17	2:36 0.0	8:34 4.6	15:02 —0.2	20:55 4.1
	Th	18	3:10 0.1	9:02 4.5	15:35 —0.1	21:20 4.2
E	F	19	3:40 0.2	9:31 4.4	16:07 0.0	21:52 4.3
	S	20	4:16 0.3	10:13 4.4	16:38 0.1	22:28 4.5
	S	21	4:55 0.3	10:38 4.3	17:12 0.2	23:12 4.5
	M	22	5:40 0.4	11:22 4.2	17:57 0.3	. . . . . .
	Tu	23	0:00 4.5	6:38 0.4	12:15 4.0	18:48 0.4
☽	W	24	0:58 4.5	7:40 0.4	13:12 3.9	19:50 0.4
	Th	25	2:04 4.5	8:52 0.3	14:25 3.8	21:00 0.3
N	F	26	3:12 4.6	10:00 0.1	15:42 3.9	22:20 0.1
	S	27	4:20 4.8	11:01 —0.2	16:55 4.1	23:15 —0.2
	S	28	5:22 5.0	12:00 —0.6	17:56 4.5	. . . . . .
	M	29	0:14 —0.5	6:20 5.3	12:52 —0.9	18:52 4.8

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	1:08 —0.8	7:14 5.5	13:41 —1.1	19:44 5.1
	W	2	2:00 —1.0	8:05 5.5	14:30 —1.3	20:32 5.3
E	Th	3	2:52 —1.0	8:54 5.5	15:18 —1.3	21:22 5.3
	F	4	3:42 —1.0	9:42 5.3	16:05 —1.1	22:11 5.2
	S	5	4:34 —0.7	10:30 4.9	16:53 —0.8	23:00 5.0
	S	6	5:25 —0.4	11:20 4.6	17:43 —0.5	23:55 4.8
	M	7	6:22 —0.1	12:14 4.1	18:38 —0.2	. . . . . .
☾	Tu	8	0:48 4.5	7:22 0.1	13:10 3.8	19:35 0.1
S	W	9	1:48 4.3	8:24 0.3	14:15 3.6	20:35 0.3
	Th	10	2:48 4.2	9:24 0.4	15:21 3.5	21:35 0.3
	F	11	3:47 4.1	10:20 0.3	16:24 3.5	22:34 0.2
	S	12	4:42 4.2	11:12 0.2	17:17 3.7	23.25 0.2
	S	13	5:31 4.3	11:59 0.1	18:02 3.8	. . . . . .
A	M	14	0:12 0.1	6:16 4.4	12:40 —0.1	18:42 4.0
	Tu	15	0:55 0.0	6:55 4.4	13:20 —0.2	19:15 4.2
	W	16	1:32 —0.1	7:28 4.5	13:52 —0.2	19:47 4.3
● E	Th	17	2:08 —0.1	8:02 4.5	14:27 —0.2	20:18 4.5
	F	18	2:41 —0.1	8:34 4.5	14:59 —0.1	20:47 4.6
	S	19	3:18 —0.1	9:06 4.5	15:32 0.0	21:22 4.6
	S	20	3:55 —0.1	9:40 4.4	16:07 0.1	22:01 4.7
	M	21	4:36 0.0	10:16 4.3	16:42 0.2	22:47 4.7
	Tu	22	5:22 0.1	11:00 4.2	17:28 0.3	23:35 4.6
	W	23	6:18 0.2	11:54 4.0	18:20 0.4	. . . . . .
N ☽	Th	24	0:33 4.5	7:22 0.3	12:57 3.9	19:27 0.5
	F	25	1:40 4.4	8:31 0.2	14:13 3.8	20:44 0.4
	S	26	2:50 4.4	9:37 0.0	15:30 3.9	21:56 0.2
	S	27	4:01 4.6	10:40 —0.2	16:38 4.3	23:02 —0.2
	M	28	5:05 4.8	11:36 —0.6	17:40 4.6	23:59 —0.6
P	Tu	29	6:02 5.1	12:30 —0.9	18:33 5.0	. . . . . .
E	W	30	0:54 —0.9	6:55 5.2	13:18 —1.1	19:21 5.3
○	Th	31	1:45 —1.1	7:45 5.3	14:05 —1.2	20:10 5.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	2:34	8:33	14:50	20:58
			—1.1	5.2	—1.1	5.5
	S	2	3:24	9:20	15:38	21:45
			—1.0	5.0	—0.9	5.3
	S	3	4:12	10:08	16:19	22:33
			—0.8	4.7	—0.6	5.1
	M	4	5:02	10:55	17:15	23:22
			—0.5	4.4	—0.3	4.7
	Tu	5	5:55	11:47	18:07	. . .
			—0.2	4.0	0.1	. . .
S	W	6	0:15	6:50	12:42	19:02
			4.5	0.1	3.7	0.3
☾	Th	7	1:10	7:47	13:43	20:02
			4.2	0.3	3.5	0.5
	F	8	2:08	8:47	14:48	21:07
			4.0	0.4	3.4	0.6
	S	9	3:08	9:42	15:47	22:02
			3.9	0.4	3.5	0.5
A	S	10	4:02	10:32	16:38	22:54
			3.9	0.3	3.6	0.4
	M	11	4:52	11:18	17:24	23:40
			4.0	0.1	3.9	0.2
	Tu	12	5:38	12:00	18:00	. . .
			4.1	0.0	4.1	. . .
E	W	13	0:22	6:17	12:40	18:37
			0.1	4.2	—0.1	4.4
	Th	14	1:00	6:55	13:15	19:12
			—0.1	4.3	—0.2	4.5
●	F	15	1:37	7:32	13:50	19:47
			—0.2	4.4	—0.2	4.8
	S	16	2:17	8:07	14:24	20:22
			—0.3	4.4	—0.2	4.9
	S	17	2:56	8:40	15:00	21:00
			—0.3	4.4	—0.1	5.0
	M	18	3:37	9:18	15:39	21:42
			—0.3	4.4	0.0	5.0
	Tu	19	4:22	10:02	16:20	22:27
			—0.2	4.3	0.1	4.9
N	W	20	5:12	10:50	17:05	23:16
			—0.1	4.2	0.3	4.7
	Th	21	6:07	11:45	18:06	. . .
			0.0	4.0	0.5	. . .
☽	F	22	0:15	7:07	12:50	19:17
			4.5	0.1	3.9	0.5
	S	23	1:18	8:12	14:05	20:32
			4.4	0.1	3.9	0.4
	S	24	2:32	9:16	15:18	21:43
			4.3	0.0	4.1	0.2
	M	25	3:44	10:18	16:24	22:47
			4.4	—0.3	4.4	—0.2
P	Tu	26	4:45	11:12	17:20	23:44
			4.6	—0.6	4.8	—0.5
E	W	27	5:42	12:03	18:12	. . .
			4.8	—0.8	5.2	. . .
	Th	28	0:37	6:36	12:53	19:01
			—0.8	4.9	—1.0	5.4
○	F	29	1:28	7:27	13:40	19:50
			—1.0	4.9	—1.0	5.5
	S	30	2:16	8:13	14:28	20:35
			—1.0	4.8	—1.0	5.5

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	MAY.					
	S	1	3:04	9:00	15:12	21:22
			—0.9	4.7	—0.7	5.3
	M	2	3:52	9:46	16:00	22:07
			—0.7	4.4	—0.4	5.1
S	Tu	3	4:38	10:32	16:47	22:54
			—0.5	4.1	—0.1	4.7
	W	4	5:28	11:20	17:37	23:42
			—0.2	3.9	0.3	4.4
	Th	5	6:18	12:10	18:28	. . .
			0.1	3.6	0.6	. . .
	F	6	0:28	7:10	13:06	19:28
			4.1	0.3	3.5	0.7
☾	S	7	1:22	8:02	14:08	20:25
			3.9	0.4	3.4	0.8
A	S	8	2:15	8:55	15:00	21:21
			3.7	0.4	3.5	0.8
	M	9	3:09	9:44	15:48	22:12
			3.7	0.4	3.7	0.6
	Tu	10	4:00	10:30	16:34	23:00
			3.7	0.2	4.0	0.4
E	W	11	4:50	11:15	17:17	23:45
			3.9	0.1	4.2	0.2
	Th	12	5:35	11:58	17:57	. . .
			4.0	—0.1	4.6	. . .
	F	13	0:28	6:20	12:40	18:38
			—0.1	4.2	—0.2	4.8
	S	14	1:10	7:00	13:17	19:17
			—0.3	4.3	—0.2	5.0
●	S	15	1:53	7:40	13:56	20:00
			—0.5	4.4	—0.2	5.2
	M	16	2:37	8:21	14:37	20:40
			—0.5	4.4	—0.2	5.2
N	Tu	17	3:23	9:05	15:22	21:26
			—0.5	4.4	—0.1	5.2
	W	18	4:10	9:54	16:07	22:14
			—0.5	4.3	0.1	5.0
	Th	19	5:01	10:44	17:00	23:05
			—0.4	4.2	0.2	4.8
	F	20	5:54	11:40	18:02	. . .
			—0.3	4.1	0.3	. . .
	S	21	0:00	6:52	12:47	19:10
			4.5	—0.2	4.0	0.4
☽ P	S	22	1:07	7:51	13:54	20:20
			4.4	—0.1	4.1	0.3
	M	23	2:14	8:50	15:02	21:26
			4.2	—0.2	4.3	0.2
E	Tu	24	3:21	9:50	16:03	22:30
			4.2	—0.3	4.6	0.1
	W	25	4:24	10:46	17:00	23:28
			4.3	—0.6	4.9	0.3
	Th	26	5:24	11:40	17:52	. . .
			4.4	—0.7	5.2	. . .
	F	27	0:20	6:18	12:30	18:42
			—0.6	4.5	—0.8	5.3
	S	28	1:12	7:08	13:17	19:30
			—0.7	4.5	—0.8	5.4
○	S	29	2:00	7:56	14:04	20:14
			—0.8	4.5	—0.7	5.4
S	M	30	2:46	8:44	14:50	21:00
			—0.7	4.3	—0.5	5.2
	Tu	31	3:31	9:26	15:35	21:42
			—0.6	4.2	—0.2	5.0

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	JUNE.					
	W	1	4:17	10:10	16:20	22:24
			—0.4	4.0	0.1	4.7
	Th	2	5:00	10:58	17:08	23:05
			—0.2	3.8	0.4	4.4
	F	3	5:46	11:34	17:52	23:45
			0.1	3.6	0.7	4.1
	S	4	6:30	12:20	18:42	. . .
			0.2	3.5	0.9	. . .
A	S	5	0:28	7:16	13:08	19:33
			3.8	0.4	3.5	1.0
☾	M	6	1:10	8:03	14:00	20:28
			3.7	0.5	3.6	0.9
E	Tu	7	2:04	8:52	14:50	21:22
			3.6	0.4	3.8	0.8
	W	8	2:57	9:41	15:42	22:17
			3.7	0.3	4.0	0.5
	Th	9	3:57	10:27	16:32	23:07
			3.7	0.2	4.4	0.2
	F	10	4:48	11:15	17:20	23:55
			3.9	0.0	4.7	0.0
	S	11	5:40	12:00	18:07	. . . .
			4.0	—0.1	5.0	. . .
	S	12	0:43	6:28	12:48	18:52
			—0.3	4.2	—0.2	5.2
●	M	13	1:30	7:20	13:32	19:39
			—0.6	4.3	—0.3	5.3
N	Tu	14	2:19	8:05	14:20	20:25
			—0.7	4.4	—0.3	5.4
	W	15	3:07	8:58	15:10	21:12
			—0.8	4.4	—0.3	5.3
	Th	16	3:56	9:45	16:00	22:02
			—0.8	4.	—0.2	5.2
P	F	17	4:46	10:38	16:58	22:55
			—0.7	4.4	0.0	4.9
	S	18	5:38	11:33	17:52	23:49
			—0.6	4.3	0.1	4.7
	S	19	6:32	12:34	18:56	. . .
			—0.4	4.3	0.2	. . .
☽ E	M	20	0:50	7:27	13:38	20:02
			4.4	—0.3	4.3	0.2
	Tu	21	1:52	8:26	14:40	21:10
			4.2	—0.3	4.4	0.1
	W	22	3:00	9:25	15:42	22:12
			4.1	—0.3	4.6	0.0
	Th	23	4:30	10:22	16:39	23:10
			4.0	—0.5	4.8	—0.2
	F	24	5:04	11:15	17:32	. . .
			4.1	—0.5	5.0	. . .
	S	25	0:05	6:00	12:08	18:22
			—0.3	4.2	—0.6	5.2
	S	26	0:55	6:52	12:57	19:10
			—0.5	4.2	—0.6	5.2
S ○	M	27	1:42	7:40	13:46	19:55
			—0.5	4.2	—0.5	5.2
	Tu	28	2:26	8:23	14:30	20:38
			—0.6	4.1	—0.3	5.0
	W	29	3:10	9:07	15:14	21:17
			—0.5	4.1	—0.1	4.8
	Th	30	3:52	9:46	15:55	21:56
			—0.4	3.9	0.1	4.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:30	10:21	16:34	22:30	
			—0.2	3.8	0.4	4.4	
	S	2	5:10	10:55	17:12	23:02	
			0.0	3.8	0.7	4.2	
A	S	3	5:50	11:35	17:52	23:35	
			0.2	3.7	0.8	4.0	
E	M	4	6:27	12:12	18:38	. . .	
			0.3	3.8	0.9	. . .	
☾	Tu	5	0:15	7:09	13:00	19:32	
			3.9	0.4	3.9	0.9	
	W	6	1:05	7:56	13:52	20:30	
			3.8	0.5	4.0	0.8	
	Th	7	1:57	8:46	14:50	21:30	
			3.7	0.4	4.2	0.6	
	F	8	3:00	9:42	15:49	22:30	
			3.7	0.3	4.4	0.3	
	S	9	4:05	10:38	16:47	23:25	
			3.8	0.1	4.7	0.0	
	S	10	5:05	11:30	17:40	. . .	
			4.0	—0.1	5.0	. . .	
N	M	11	0:18	6:03	12:22	18:31	
			—0.3	4.2	—0.3	5.3	
	Tu	12	1:10	7:00	13:14	19:22	
			—0.7	4.3	—0.4	5.4	
●	W	13	2:00	7:52	14:05	20:12	
			—0.9	4.6	—0.5	5.5	
P	Th	14	2:48	8:43	14:57	21:02	
			—1.0	4.7	—0.5	5.4	
	F	15	3:37	9:33	15:50	21:52	
			—1.0	4.7	—0.5	5.3	
	S	16	4:26	10:24	16:42	22:42	
			—0.9	4.7	—0.3	5.1	
E	S	17	5:16	11:18	17:38	23:37	
			—0.8	4.7	—0.2	4.8	
	M	18	6:07	12:14	18:38	. . .	
			—0.6	4.6	0.0	. . .	
☽	Tu	19	0:30	7:02	13:15	19:42	
			4.4	—0.4	4.5	0.1	
	W	20	1:30	8:00	14:15	20:48	
			4.1	—0.3	4.5	0.1	
	Th	21	2:37	9:00	15:18	21:51	
			3.9	—0.2	4.5	0.1	
	F	22	3:42	10:00	16:16	22:52	
			3.8	—0.2	4.7	0.0	
	S	23	4:46	10:55	17:12	23:45	
			3.9	—0.3	4.8	—0.1	
S	S	24	5:45	11:48	18:04	. . .	
			3.9	—0.3	4.9	. . .	
	M	25	0:35	6:36	12:38	18:52	
			—0.2	4.0	—0.4	5.0	
	Tu	26	1:22	7:22	13:25	19:34	
			—0.3	4.0	—0.3	5.0	
○	W	27	2:05	8:04	14:09	20:15	
			—0.4	4.0	—0.2	4.9	
	Th	28	2:45	8:41	14:50	20:51	
			—0.4	4.0	—0.1	4.7	
	F	29	3:24	9:17	15:28	21:24	
			—0.3	4.0	0.1	4.5	
A	S	30	3:59	9:47	16:01	21:55	
			—0.2	4.0	0.3	4.4	
	S	31	4:32	10:17	16:35	22:26	
			0.0	4.0	0.5	4.2	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	5:06	10:47	17:10	22:54	
			0.2	4.1	0.6	4.2	
	Tu	2	5:40	11:27	17:52	23:30	
			0.3	4.1	0.6	4.1	
	W	3	6:18	12:12	18:42	. . .	
			0.4	4.2	0.7	. . .	
☾	Th	4	0:17	7:05	13:05	19:42	
			4.0	0.5	4.2	0.6	
	F	5	1:12	7:57	14:05	20:48	
			3.9	0.5	4.3	0.5	
	S	6	2:17	9:00	15:10	21:57	
			3.8	0.4	4.5	0.3	
	S	7	3:28	10:04	16:15	22:57	
			3.8	0.2	4.7	0.0	
N	M	8	4:40	11:05	17:15	23:54	
			4.0	0.0	5.0	—0.4	
	Tu	9	5:42	12:03	18:11	. . .	
			4.2	—0.3	5.2	. . .	
	W	10	0:47	6:40	13:00	19:04	
			—0.7	4.5	—0.6	5.4	
●	Th	11	1:37	7:32	13:50	19:56	
			—1.0	4.8	—0.8	5.5	
P	F	12	2:25	8:24	14:42	20:47	
			—1.1	5.0	—0.8	5.5	
	S	13	3:14	9:51	15:34	21:36	
			—1.2	5.1	—0.8	5.4	
E	S	14	4:03	10:05	16:25	22:25	
			—1.2	5.1	—0.7	5.1	
	M	15	4:50	10:57	17:20	23:14	
			—0.9	5.0	—0.4	4.8	
	Tu	16	5:42	11:50	18:17	. . .	
			—0.7	4.9	—0.2	. . .	
☽	W	17	0:10	6:35	12:47	19:20	
			4.4	—0.4	4.6	0.0	
	Th	18	1:08	7:33	13:52	20:24	
			4.1	—0.2	4.5	0.1	
	F	19	2:14	8:34	14:52	21:27	
			3.8	—0.1	4.4	0.2	
S	S	20	3:22	9:36	15:52	22:27	
			3.7	0.0	4.4	0.2	
	S	21	4:27	10:34	16:50	23:20	
			3.7	0.0	4.5	—0.1	
	M	22	5:27	11:30	17:42	. . .	
			3.8	—0.1	4.6	. . .	
	Tu	23	0:10	6:17	12:20	18:30	
			—0.1	3.9	—0.2	4.7	
	W	24	0:57	7:01	13:05	19:10	
			—0.2	4.0	—0.2	4.7	
○	Th	25	1:37	7:38	13:48	19:49	
			—0.3	4.1	—0.2	4.7	
A	F	26	2:16	8:13	14:25	20:23	
			—0.3	4.1	—0.1	4.6	
	S	27	2:52	8:42	14:59	20:52	
			—0.3	4.2	0.1	4.5	
E	S	28	3:22	9:11	15:32	21:24	
			—0.1	4.2	0.2	4.4	
	M	29	3:53	9:39	16:04	21:50	
			0.0	4.3	0.3	4.3	
	Tu	30	4:25	10:11	16:40	22:20	
			0.1	4.4	0.3	4.3	
	W	31	4:58	10:50	17:20	23:00	
			0.3	4.4	0.4	4.2	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low water.				
	Th	1	5:32	11:35	18:10	23:46	
			0.4	4.5	0.5	4.1	
☾	F	2	6:20	12:27	19:08	. . .	
			0.5	4.4	0.5	. . .	
	S	3	0:42	7:20	13:28	20:17	
			3.9	0.5	4.4	0.4	
N	S	4	1:47	8:28	14:38	21:26	
			3.8	0.5	4.4	0.2	
	M	5	3:04	9:39	15:47	22:30	
			3.8	0.3	4.5	0.0	
	Tu	6	4:21	10:47	16:42	23:30	
			4.0	0.0	4.8	—0.4	
	W	7	5:26	11:46	17:52	. . .	
			4.4	—0.4	5.1	. . .	
	Th	8	0:22	6:24	12:42	18:46	
			—0.7	4.7	—0.7	5.3	
P ●	F	9	1:12	7:15	13:35	19:38	
			—1.0	5.1	—1.0	5.5	
E	S	10	2:02	8:05	14:26	20:28	
			—1.2	5.3	—1.0	5.5	
	S	11	2:52	8:54	15:16	21:16	
			—1.3	5.4	—1.0	5.3	
	M	12	3:37	9:43	16:07	22:06	
			—1.1	5.4	—0.9	5.0	
	Tu	13	4:25	10:33	17:00	22:57	
			—0.9	5.3	—0.6	4.6	
	W	14	5:16	11:25	17:57	23:48	
			—0.6	5.0	—0.4	4.3	
	Th	15	6:08	12:20	18:54	. . .	
			—0.3	4.7	—0.1	. . .	
☽	F	16	0:45	7:07	13:18	19:57	
			4.0	0.0	4.5	0.2	
S	S	17	1:51	8:08	14:22	20:59	
			3.7	0.2	4.3	0.2	
	S	18	2:58	9:11	15:19	21:57	
			3.6	0.2	4.2	0.2	
	M	19	4:04	10:18	16:20	22:52	
			3.6	0.2	4.2	0.1	
	Tu	20	5:01	11:06	17:15	23:39	
			3.8	0.1	4.3	0.0	
	W	21	5:48	11:56	18:07	. . .	
			3.9	0.0	4.4	. . .	
	Th	22	0:25	6:30	12:40	18:42	
			—0.1	4.1	0.0	4.4	
A	F	23	1:05	7:06	13:22	19:19	
			—0.2	4.2	—0.1	4.4	
○ E	S	24	1:41	7:38	13:56	19:53	
			—0.3	4.3	—0.1	4.4	
	S	25	2:15	8:08	14:30	20:22	
			—0.2	4.4	—0.1	4.4	
	M	26	2:47	8:42	15:05	20:50	
			—0.1	4.5	0.0	4.3	
	Tu	27	3:17	9:08	15:40	21:22	
			0.0	4.6	0.0	4.3	
	W	28	3:50	9:42	16:17	21:56	
			0.1	4.6	0.1	4.3	
	Th	29	4:21	10:23	17:01	22:37	
			0.2	4.7	0.2	4.2	
	F	30	5:02	11:08	17:49	23:25	
			0.4	4.6	0.2	4.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	5:50 0.5	12:00 4.5	18:50 0.3	. . . . . .
☾	S	2	0:22 3.9	6:52 0.6	13:02 4.4	19:55 0.3
	M	3	1:32 3.8	8:05 0.6	14:12 4.3	21:00 0.2
	Tu	4	2:48 3.9	9:20 0.3	15:28 4.4	22:05 —0.1
	W	5	4:02 4.2	10:19 0.0	16:30 4.6	23:03 —0.4
	Th	6	5:06 4.6	11:30 —0.4	17:32 4.9	23:58 —0.7
	F	7	6:02 5.0	12:26 —0.7	18:26 5.1	. . . . . .
P E	S	8	0:48 —1.0	6:54 5.3	13:18 —1.0	19:17 5.2
●	S	9	1:37 —1.2	7:42 5.6	14:08 —1.1	20:08 5.2
	M	10	2:25 —1.2	8:32 5.6	14:59 —1.1	20:57 5.1
	Tu	11	3:12 —1.0	9:20 5.6	15:48 —1.0	21:45 4.8
	W	12	4:00 —0.8	10:08 5.3	16:40 —0.7	22:34 4.5
	Th	13	4:50 —0.5	10:59 5.1	17:32 —0.4	23:28 4.2
S	F	14	5:43 —0.1	11:52 4.7	18:28 —0.1	. . . . . .
	S	15	0:21 3.9	6:40 0.2	12:47 4.4	19:26 0.1
☽	S	16	1:24 3.7	7:40 0.4	13:46 4.1	20:25 0.2
	M	17	2:28 3.6	8:43 0.5	14:47 4.0	21:22 0.2
	Tu	18	3:30 3.6	9:44 0.5	15:44 4.0	22:14 0.2
	W	19	4:23 3.7	10:37 0.4	16:38 4.0	23:00 0.1
A	Th	20	5:10 3.9	11:25 0.2	17:25 4.1	23:45 0.0
E	F	21	5:51 4.1	12:10 0.1	18:05 4.1	. . . . . .
	S	22	0:26 —0.2	6:28 4.3	12:48 0.0	18:44 4.2
	S	23	1:02 —0.2	7:03 4.5	13:26 —0.1	19:17 4.2
○	M	24	1:38 —0.2	7:37 4.7	14:02 —0.2	19:51 4.3
	Tu	25	2:12 —0.1	8:07 4.8	14:40 —0.2	20:24 4.3
	W	26	2:45 0.0	8:42 4.9	15:20 —0.2	20:57 4.3
	Th	27	3:19 0.1	9:21 4.9	16:02 —0.2	21:40 4.3
	F	28	3:57 0.2	10:02 4.9	16:47 —0.1	22:23 4.2
N	S	29	4:43 0.3	10:50 4.7	17:36 0.0	23:13 4.1
	S	30	5:33 0.5	11:42 4.6	18:34 0.1	. . . . . .
☾	M	31	0:15 4.0	6:42 0.6	12:43 4.4	19:36 0.1

NOVEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	1:24 3.9	7:52 0.5	13:52 4.3	20:38 0.0
	W	2	2:36 4.0	9:07 0.3	15:01 4.3	21:40 —0.1
	Th	3	3:45 4.3	10:13 0.0	16:10 4.4	22:40 —0.5
E	F	4	4:46 4.7	11:16 —0.3	17:10 4.6	23:32 —0.7
P	S	5	5:42 5.1	12:10 —0.7	18:07 4.8	. . . . . .
	S	6	0:24 —0.9	6:32 5.4	13:02 —0.9	18:59 4.9
●	M	7	1:14 —1.0	7:22 5.6	13:52 —1.0	19:48 4.8
	Tu	8	2:00 —1.0	8:10 5.7	14:42 —1.0	20:37 4.8
	W	9	2:50 —0.9	8:58 5.6	15:30 —0.9	21:25 4.6
S	Th	10	3:37 —0.6	9:45 5.3	16:20 —0.7	22:15 4.3
	F	11	4:27 —0.3	10:34 5.0	17:10 —0.5	23:06 4.0
	S	12	5:17 0.0	11:23 4.5	18:02 —0.2	23:58 3.8
	S	13	6:12 0.3	12:11 4.3	18:55 0.0	. . . . . .
☽	M	14	0:53 3.6	7:08 0.6	13:04 4.0	19:45 0.2
	Tu	15	1:50 3.6	8:08 0.7	14:00 3.8	20:38 0.3
	W	16	2:46 3.6	9:05 0.7	14:55 3.7	21:30 0.2
A	Th	17	3:38 3.7	10:00 0.6	15:48 3.7	22:17 0.2
E	F	18	4:22 3.9	10:50 0.5	16:35 3.8	23:00 0.1
	S	19	5:05 4.2	11:32 0.3	17:20 3.9	23:42 0.0
	S	20	5:47 4.4	12:15 0.1	18:04 4.0	. . . . . .
	M	21	0:22 —0.1	6:24 4.7	12:57 —0.2	18:43 4.1
☾	Tu	22	1:04 —0.1	7:02 4.9	13:37 —0.3	19:20 4.2
	W	23	1:40 —0.1	7:42 5.0	14:19 —0.4	20:02 4.2
	Th	24	2:22 —0.1	8:22 5.1	15:02 —0.5	20:42 4.3
N	F	25	3:00 0.0	9:05 5.1	15:47 —0.4	21:27 4.3
	S	26	3:42 0.1	9:48 5.0	16:35 —0.4	22:15 4.2
	S	27	4:33 0.2	10:37 4.8	17:25 —0.3	23:10 4.2
	M	28	5:28 0.4	11:28 4.6	18:18 —0.2	. . . . . .
	Tu	29	0:08 4.1	6:32 0.4	12:27 4.4	19:17 —0.1
☾	W	30	1:12 4.1	7:41 0.4	13:33 4.3	20:15 —0.1

DECEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	2:20 4.2	8:52 0.3	14:42 4.2	21:15 —0.2
P	F	2	3:26 4.5	9:56 0.0	15:50 4.2	22:12 —0.4
	S	3	4:25 4.8	10:58 —0.2	16:50 4.3	23:07 —0.6
	S	4	5:22 5.1	11:55 —0.5	17:48 4.4	. . . . . .
	M	5	0:00 —0.7	6:15 5.4	12:47 —0.7	18:41 4.5
●	Tu	6	0:52 —0.9	7:04 5.5	13:37 —0.9	19:32 4.5
	W	7	1:43 —0.8	7:52 5.5	14:25 —0.9	20:21 4.5
S	Th	8	2:30 —0.7	8:38 5.4	15:12 —0.8	21:10 4.3
	F	9	3:16 —0.5	9:25 5.2	15:58 —0.7	21:55 4.2
	S	10	4:06 —0.2	10:09 4.9	16:44 —0.5	22:40 4.0
	S	11	4:52 0.1	10:52 4.6	17:30 —0.2	23:27 3.8
	M	12	5:40 0.4	11:35 4.3	18:18 0.0	. . . . . .
	Tu	13	0:14 3.7	6:30 0.7	12:18 4.0	19:02 0.2
☽ A	W	14	1:02 3.6	7:20 0.8	13:01 3.8	19:50 0.3
E	Th	15	1:50 3.6	8:14 0.9	13:55 3.6	20:37 0.4
	F	16	2:40 3.7	9:07 0.8	14:40 3.6	21:25 0.3
	S	17	3:28 3.9	10:00 0.7	15:37 3.6	22:12 0.3
	S	18	4:16 4.2	10:50 0.5	16:27 3.7	23:00 0.1
	M	19	5:02 4.5	11:38 0.2	17:24 3.8	23:45 0.0
	Tu	20	5:50 4.7	12:25 —0.1	18:10 4.0	. . . . . .
	W	21	0:30 —0.1	6:35 5.0	13:12 —0.3	18:58 4.1
○ N	Th	22	1:15 —0.2	7:20 5.2	13:58 —0.5	19:44 4.3
	F	23	2:00 —0.2	8:05 5.3	14:44 —0.7	20:30 4.4
	S	24	2:50 —0.2	8:52 5.2	15:31 —0.7	21:18 4.4
	S	25	3:34 —0.1	9:37 5.2	16:20 —0.7	22:08 4.4
	M	26	4:25 0.0	10:27 5.0	17:08 —0.6	23:00 4.4
P	Tu	27	5:20 0.1	11:18 4.7	18:00 —0.4	23:57 4.4
	W	28	6:22 0.2	12:15 4.5	18:54 —0.3	. . . . . .
E ☾	Th	29	0:57 4.4	7:26 0.2	13:18 4.2	19:50 —0.2
	F	30	2:02 4.4	8:32 0.2	14:20 4.1	20:50 —0.2
	S	31	3:04 4.6	9:39 0.1	15:56 4.0	21:47 —0.3

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:40	12:08	18:10	. . .	
			5.5	—0.6	4.7	. . .	
N	S	2	0:15	6:32	13:02	19:02	
			—0.5	5.8	—0.9	4.9	
○	S	3	1:10	7:24	13:50	19:55	
			—0.7	5.9	—1.1	5.0	
P	M	4	1:59	8:13	14:43	20:46	
			—0.7	5.9	—1.1	5.1	
	Tu	5	2:52	9:05	15:32	21:38	
			—0.6	5.8	—1.1	5.1	
	W	6	3:44	9:54	16:23	22:21	
			—0.5	5.6	—0.9	5.0	
	Th	7	4:40	10:44	17:12	23:20	
			—0.3	5.3	—0.7	5.0	
E	F	8	5:37	11:34	18:06	. . .	
			—0.1	5.0	—0.5	. . .	
☾	S	9	0:14	6:37	12:30	18:52	
			4.9	0.0	4.7	—0.4	
	S	10	1:17	7:40	13:38	19:58	
			4.8	0.2	4.4	—0.2	
	M	11	2:17	8:42	14:42	20:55	
			4.8	0.2	4.2	—0.1	
	Tu	12	3:15	9:44	15:42	21:58	
			4.8	0.2	4.1	—0.1	
	W	13	4:10	10:40	16:40	22:47	
			4.9	0.1	4.1	—0.1	
	Th	14	5:02	11:33	17:33	23:38	
			5.0	0.0	4.2	—0.2	
S	F	15	5:52	12:21	18:22	. . .	
			5.0	—0.1	4.2	. . .	
	S	16	0:25	6:36	13:06	19:08	
			—0.1	5.1	—0.2	4.2	
●	S	17	1:11	7:19	13:46	19:50	
			—0.1	5.1	—0.3	4.2	
	M	18	1:52	7:57	14:25	20:28	
			0.0	5.0	—0.3	4.2	
A	Tu	19	2:30	8:34	15:00	21:04	
			0.2	4.8	—0.2	4.2	
	W	20	3:04	9:11	15:35	21:37	
			0.3	4.7	—0.1	4.2	
	Th	21	3:40	9:42	16:08	22:11	
			0.5	4.5	0.0	4.2	
E	F	22	4:14	10:17	16:44	22:50	
			0.6	4.3	0.2	4.2	
	S	23	4:52	10:52	17:23	23:33	
			0.6	4.2	0.2	4.3	
	S	24	5:41	11:38	18:06	. . .	
			0.6	4.1	0.3	. . .	
☽	M	25	0:22	6:37	12:30	18:57	
			4.3	0.6	4.0	0.4	
	Tu	26	1:18	7:39	13:30	19:53	
			4.4	0.6	3.9	0.4	
	W	27	2:18	8:46	14:37	20:55	
			4.5	0.4	4.0	0.2	
	Th	28	3:20	9:52	15:45	21:59	
			4.8	0.1	4.1	0.0	
N	F	29	4:20	10:52	16:50	23:00	
			5.1	—0.2	4.4	—0.2	
	S	30	5:18	11:50	17:48	23:57	
			5.4	—0.6	4.6	—0.5	
	S	31	6:13	12:42	18:45	. . .	
			5.7	—0.9	5.0	. . .	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	M	1	0:52	7:06	13:32	19:37	
P			—0.8	5.9	—1.1	5.2	
	Tu	2	1:44	7:56	14:21	20:27	
			—0.9	5.9	—1.2	5.3	
	W	3	2:37	8:47	15:09	21:17	
			—0.9	5.9	—1.2	5.4	
E	Th	4	3:28	9:37	15:57	22:07	
			—0.8	5.6	—1.1	5.4	
	F	5	4:20	10:27	16:47	22:59	
			—0.6	5.3	—0.8	5.2	
	S	6	5:16	11:20	17:37	23:51	
			—0.4	5.0	—0.6	5.0	
	S	7	6:14	12:15	18:30	. . .	
			—0.1	4.6	—0.3	. . .	
☾	M	8	0:47	7:14	13:14	19:27	
			4.8	0.1	4.3	0.0	
	Tu	9	1:47	8:15	14:15	20:27	
			4.6	0.3	4.0	0.1	
	W	10	2:45	9:16	15:17	21:27	
			4.6	0.3	3.9	0.2	
S	Th	11	3:42	10:14	16:16	22:23	
			4.6	0.3	3.9	0.2	
	F	12	4:37	11:07	17:10	23:16	
			4.6	0.2	4.0	0.1	
	S	13	5:26	11:55	18:00	. . .	
			4.7	0.0	4.1	. . .	
	S	14	0:02	6:12	12:38	18:42	
			0.1	4.8	—0.1	4.2	
A	M	15	0:47	6:54	13:17	19:22	
			0.0	4.9	—0.2	4.3	
●	Tu	16	1:27	7:32	13:56	20:00	
			0.0	4.9	—0.2	4.4	
	W	17	2:05	8:07	14:29	20:32	
			0.1	4.8	—0.2	4.5	
	Th	18	2:38	8:40	15:00	21:04	
			0.2	4.7	—0.1	4.5	
E	F	19	3:12	9:12	15:34	21:40	
			0.2	4.5	0.0	4.5	
	S	20	3:49	9:47	16:08	22:16	
			0.3	4.5	0.1	4.5	
	S	21	4:27	10:27	16:45	23:00	
			0.3	4.3	0.2	4.5	
	M	22	5:15	11:08	17:28	23:48	
			0.4	4.2	0.3	4.5	
	Tu	23	6:07	12:02	18:18	. . .	
			0.4	4.0	0.4	. . .	
☽	W	24	0:44	7:10	13:02	19:21	
			4.5	0.5	3.9	0.4	
	Th	25	1:47	8:17	14:12	20:19	
			4.5	0.4	3.9	0.3	
N	F	26	2:53	9:25	15:22	21:37	
			4.7	0.2	4.1	0.1	
	S	27	3:57	10:29	16:30	22:42	
			5.0	—0.2	4.4	—0.2	
	S	28	4:57	11:27	17:30	23:42	
			5.3	—0.5	4.8	—0.5	
	M	29	5:55	12:20	18:25	. . .	
			5.5	—0.7	5.1	. . .	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	0:37	6:47	13:12	19:16	
○			—0.9	5.7	—1.1	5.4	
	W	2	1:30	7:38	13:58	20:04	
			—1.0	5.8	—1.2	5.6	
E	Th	3	2:20	8:28	14:45	20:54	
			—1.1	5.8	—1.2	5.7	
	F	4	3:10	9:17	15:32	21:42	
			—1.0	5.6	—1.1	5.6	
	S	5	4:00	10:06	16:20	22:32	
			—0.8	5.3	—0.8	5.4	
	S	6	4:53	10:56	17:10	23:24	
			—0.5	4.9	—0.4	5.1	
	M	7	5:47	11:49	18:02	. . .	
			—0.2	4.5	—0.1	. . .	
☾	Tu	8	0:16	6:45	12:46	18:58	
			4.8	0.1	4.1	0.2	
S	W	9	1:12	7:43	13:46	19:53	
			4.5	0.3	3.9	0.4	
	Th	10	2:12	8:44	14:47	20:57	
			4.4	0.4	3.8	0.5	
	F	11	3:09	9:41	15:47	21:56	
			4.3	0.4	3.8	0.4	
	S	12	4:06	10:34	16:41	22:50	
			4.4	0.3	3.9	0.4	
	S	13	4:57	11:22	17:28	23:37	
			4.5	0.2	4.1	0.2	
A	M	14	5:42	12:05	18:12	. . .	
			4.6	0.0	4.3	. . .	
	Tu	15	0:20	6:25	12:45	18:48	
			0.1	4.7	—0.1	4.5	
	W	16	1:00	7:00	13:20	19:25	
			0.0	4.7	—0.2	4.6	
●	Th	17	1:37	7:37	13:55	20:00	
E			0.0	4.7	—0.2	4.7	
	F	18	2:12	8:14	14:28	20:35	
			0.0	4.7	—0.2	4.8	
	S	19	2:48	8:47	15:02	21:08	
			0.0	4.6	—0.1	4.8	
	S	20	3:27	9:25	15:36	21:47	
			0.0	4.5	0.0	4.8	
	M	21	4:07	10:02	16:15	22:32	
			0.0	4.4	0.2	4.7	
	Tu	22	4:55	10:50	16:58	23:20	
			0.1	4.2	0.3	4.7	
	W	23	5:50	11:42	17:52	. . .	
			0.2	4.1	0.4	. . .	
N	Th	24	0:18	6:50	12:47	18:59	
☽			4.6	0.3	4.0	0.5	
	F	25	1:22	7:06	13:55	20:10	
			4.5	0.2	4.0	0.4	
	S	26	2:30	9:02	15:06	21:22	
			4.6	0.1	4.2	0.2	
	S	27	3:35	10:05	16:12	22:27	
			4.8	—0.2	4.5	—0.2	
	M	28	4:37	11:08	17:10	23:27	
			5.1	—0.5	4.9	—0.5	
P	Tu	29	5:35	11:56	18:05	. . .	
			5.3	—0.8	5.3	. . .	
E	W	30	0:21	6:29	12:45	18:55	
			—0.8	5.5	—1.0	5.6	
○	Th	31	1:12	7:20	13:35	19:42	
			—0.8	5.6	—1.2	5.8	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:03	8:08	14:20	20:29
			—1.1	5.5	—1.1	5.8
	S	2	2:52	8:55	15:06	21:16
			—1.0	5.3	—0.9	5.6
	S	3	3:40	9:44	15:52	22:05
			—0.8	5.0	—0.6	5.4
	M	4	4:30	10:32	16:41	22:52
			—0.5	4.7	—0.2	5.1
	Tu	5	5:20	11:22	17:32	23:43
			—0.2	4.3	0.1	4.7
S	W	6	6:13	12:16	18:27	. . .
			0.1	4.0	0.4	. . .
☾	Th	7	0:37	7:08	13:15	19:26
			4.4	0.3	3.8	0.7
	F	8	1:34	8:07	14:14	20:27
			4.2	0.5	3.7	0.7
	S	9	2:30	9:02	15:13	21:23
			4.1	0.5	3.8	0.7
A	S	10	3:25	9:55	16:05	22:17
			4.1	0.4	3.9	0.6
	M	11	4:18	10:40	16:52	23:05
			4.2	0.2	4.2	0.4
	Tu	12	5:05	11:25	17:34	23:48
			4.3	0.1	4.4	0.2
E	W	13	5:48	12:06	18:12	. . .
			4.5	—0.1	4.6	. . .
	Th	14	0:28	6:30	12:43	18:49
			0.0	4.6	—0.2	4.9
●	F	15	1:08	7:08	13:20	19:25
			—0.2	4.6	—0.2	5.0
	S	16	1:46	7:46	13:56	20:04
			—0.3	4.6	—0.2	5.1
	S	17	2:27	8:25	14:32	20:47
			—0.3	4.6	—0.1	5.1
	M	18	3:10	9:05	15:10	21:26
			—0.3	4.5	0.0	5.1
	Tu	19	3:53	9:49	15:52	22:12
			—0.2	4.4	0.1	4.9
N	W	20	4:42	10:37	16:42	23:02
			—0.1	4.3	0.3	4.8
	Th	21	5:35	11:32	17:37	. . .
			0.0	4.1	0.4	. . .
☽	F	22	0:00	6:34	12:36	18:47
			4.6	0.1	4.1	0.5
	S	23	1:03	7:37	13:43	19:56
			4.5	0.1	4.1	0.5
	S	24	2:10	8:41	14:52	21:07
			4.5	0.0	4.4	0.2
	M	25	3:17	9:41	15:52	22:14
			4.6	—0.2	4.6	—0.1
P	Tu	26	4:18	10:38	16:50	23:11
			4.8	—0.5	5.1	—0.5
E	W	27	5:17	11:32	17:43	. . .
			5.0	—0.8	5.4	. . .
	Th	28	0:05	6:10	12:21	18:32
			—0.7	5.2	—0.9	5.7
○	F	29	0:55	7:00	13:09	19:20
			—0.9	5.2	—1.0	5.8
	S	30	1:44	7:47	13:57	20:06
			—1.0	5.2	—0.9	5.8

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	2:31	8:35	14:41	20:52
			—1.0	5.0	—0.7	5.6
	M	2	3:18	9:21	15:27	21:39
			—0.8	4.8	—0.4	5.4
S	Tu	3	4:07	10:08	16:13	22:24
			—0.5	4.5	0.0	5.0
	W	4	4:52	10:57	17:02	23:10
			0.2	4.2	0.3	4.6
	Th	5	5:42	11:57	17:54	. . .
			0.0	4.0	0.6	. . .
	F	6	0:00	6:31	12:42	18:47
			4.3	0.3	3.8	0.9
☾	S	7	0:50	7:22	13:35	19:45
			4.1	0.5	3.8	0.9
A	S	8	1:42	8:13	14:30	20:44
			3.9	0.5	3.8	0.9
	M	9	2:40	9:04	15:18	21:36
			3.9	0.5	4.0	0.8
	Tu	10	3:32	9:53	16:06	22:25
			4.0	0.3	4.2	0.5
E	W	11	4:20	10:38	16:52	23:12
			4.1	0.1	4.5	0.3
	Th	12	5:08	11:22	17:34	23:56
			4.2	0.0	4.8	0.0
	F	13	5:54	12:04	18:16	. . .
			4.4	—0.1	5.1	. . .
	S	14	0:41	6:38	12:47	18:58
			—0.3	4.5	—0.2	5.3
●	S	15	1:23	7:22	13:27	19:40
			—0.4	4.6	—0.3	5.4
	M	16	2:08	8:04	14:10	20:25
			—0.6	4.6	—0.2	5.4
N	Tu	17	2:52	8:50	14:55	21:08
			—0.6	4.6	—0.1	5.3
	W	18	3:40	9:37	15:40	21:57
			—0.5	4.5	0.0	5.2
	Th	19	4:30	10:29	16:30	22:49
			—0.4	4.4	0.2	5.0
	F	20	5:23	11:25	17:30	23:45
			—0.3	4.3	0.3	4.7
	S	21	6:18	12:24	18:34	. . .
			—0.1	4.3	0.4	. . .
☽ P	S	22	0:46	7:18	13:29	19:43
			4.6	—0.1	4.4	0.3
	M	23	1:50	8:17	14:32	20:52
			4.5	—0.1	4.6	0.2
E	Tu	24	2:55	9:17	15:31	21:56
			4.5	—0.3	4.8	0.0
	W	25	3:59	10:13	16:28	22:53
			4.6	—0.4	5.1	—0.3
	Th	26	4:56	11:08	17:20	23:47
			4.7	—0.6	5.4	—0.6
	F	27	5:50	11:58	18:11	. . .
			4.8	—0.7	5.6	. . .
	S	28	0:38	6:41	12:47	18:58
			—0.7	4.8	—0.7	5.7
○	S	29	1:26	7:28	13:35	19:44
			—0.8	4.8	—0.7	5.6
S	M	30	2:12	8:14	14:19	20:29
			—0.7	4.7	—0.5	5.5
	Tu	31	2:58	9:00	15:05	21:12
			—0.6	4.5	—0.2	5.3

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	3:42	9:45	15:47	21:56
			—0.4	4.4	0.1	5.0
	Th	2	4:26	10:30	16:32	22:37
			—0.2	4.2	0.4	4.6
	F	3	5:08	11:14	17:17	23:20
			0.0	4.0	0.7	4.3
	S	4	5:52	12:00	18:04	. . .
			0.2	3.9	0.9	. . .
A	S	5	0:04	6:37	12:48	18:55
			4.0	0.4	3.8	1.0
☾	M	6	0:50	7:23	13:38	19:52
			4.0	0.5	3.9	1.0
E	Tu	7	1:42	8:12	14:30	20:48
			3.8	0.5	4.1	0.8
	W	8	2:37	9:02	15:19	21:42
			3.8	0.4	4.3	0.6
	Th	9	3:35	9:52	16:10	22:35
			3.9	0.2	4.6	0.3
	F	10	4:27	10:42	16:58	23:25
			4.0	0.1	4.9	0.0
	S	11	5:20	11:30	17:44	. . .
			4.2	—0.1	5.2	. . .
	S	12	0:14	6:10	12:18	18:32
			—0.3	4.4	—0.2	5.4
●	M	13	1:02	6:59	13:04	19:20
			—0.5	4.6	—0.3	5.6
N	Tu	14	1:50	7:47	13:52	20:07
			—0.7	4.7	—0.3	5.6
	W	15	2:36	8:37	14:40	20:55
			—0.8	4.7	—0.3	5.6
	Th	16	3:24	9:27	15:30	21:45
			—0.8	4.6	—0.2	5.4
P	F	17	4:14	10:18	16:18	22:37
			—0.7	4.7	—0.1	5.2
	S	18	5:07	11:12	17:20	23:30
			—0.5	4.6	0.1	4.9
	S	19	6:00	12:10	18:22	. . .
			—0.4	4.6	0.2	. . .
☽ E	M	20	0:27	6:55	13:08	19:28
			4.7	—0.3	4.7	0.2
	Tu	21	1:30	7:52	14:10	20:33
			4.5	—0.2	4.7	0.2
	W	22	2:34	8:52	15:09	21:37
			4.4	—0.2	4.9	0.1
	Th	23	3:37	9:49	16:07	22:35
			4.4	—0.3	5.0	—0.1
	F	24	4:36	10:44	17:02	23:30
			4.4	—0.4	5.2	—0.3
	S	25	5:30	11:32	17:50	. . .
			4.4	—0.5	5.3	. . .
	S	26	0:21	6:22	12:26	18:40
			—0.4	4.5	—0.5	5.4
S ○	M	27	1:06	7:08	13:15	19:25
			—0.4	4.5	—0.4	5.4
	Tu	28	1:52	7:56	14:00	20:07
			—0.5	4.5	—0.3	5.3
	W	29	2:35	8:40	14:42	20:49
			—0.5	4.4	—0.1	5.1
	Th	30	3:17	9:20	15:25	21:30
			—0.4	4.3	0.2	4.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:55	10:00	16:00	22:10
			—0.2	4.2	0.5	4.6
	S	2	4:36	10:40	16:40	22:42
			0.0	4.0	0.7	4.3
A	S	3	5:12	11:18	17:20	23:19
			0.2	4.0	0.9	4.1
E	M	4	5:52	12:00	18:05	. . .
			0.4	4.0	0.9	. . .
☾	Tu	5	0:02	6:34	12:48	18:57
			3.9	0.5	4.1	0.9
	W	6	0:50	7:20	13:40	19:51
			3.8	0.5	4.2	0.8
	Th	7	1:45	8:12	14:35	20:56
			3.7	0.5	4.3	0.6
	F	8	2:46	9:08	15:18	21:52
			3.8	0.3	4.6	0.3
	S	9	3:48	10:02	16:24	22:54
			3.9	0.2	4.9	0.0
	S	10	4:47	10:57	17:19	23:48
			4.2	—0.1	5.2	—0.3
N	M	11	5:45	11:50	18:10	. . .
			4.4	—0.3	5.5	. . .
	Tu	12	0:40	6:38	12:43	19:00
			—0.6	4.6	—0.5	5.7
●	W	13	1:30	7:30	13:34	19:50
			—0.8	4.8	—0.6	5.8
P	Th	14	2:18	8:20	14:26	20:38
			—1.0	5.0	—0.6	5.7
	F	15	3:05	9:10	15:18	21:29
			—1.0	5.1	—0.6	5.6
	S	16	3:55	10:01	16:10	22:20
			—0.9	5.1	—0.4	5.3
E	S	17	4:44	10:54	17:05	23:12
			—0.8	5.0	—0.2	5.0
	M	18	5:36	11:48	18:00	. . .
			—0.6	4.9	0.0	. . .
☽	Tu	19	0:07	6:29	12:44	19:08
			4.7	—0.4	4.9	0.1
	W	20	1:07	7:23	13:44	20:12
			4.5	—0.2	4.8	0.2
	Th	21	2:10	8:25	14:45	21:13
			4.2	—0.1	4.8	0.2
	F	22	3:14	9:24	15:42	22:15
			4.1	—0.1	4.8	0.1
	S	23	4:14	10:23	16:38	23:10
			4.1	—0.1	4.9	0.0
S	S	24	5:10	11:16	17:32	. . .
			4.2	—0.2	5.1	. . .
	M	25	0:00	6:02	12:07	18:20
			—0.1	4.3	—0.2	5.1
	Tu	26	0:47	6:50	12:56	19:04
			—0.3	4.3	—0.2	5.2
○	W	27	1:30	7:35	13:40	19:45
			—0.3	4.4	—0.1	5.1
	Th	28	2:10	8:15	14:20	20:24
			—0.4	4.4	0.0	5.0
	F	29	2:50	8:52	14:57	21:00
			—0.3	4.3	0.2	4.8
A	S	30	3:21	9:27	15:32	21:32
			—0.2	4.3	0.3	4.5
	S	31	3:59	10:00	16:07	22:07
			0.0	4.3	0.5	4.3

AUGUST.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	4:32	10:37	16:41	22:40
			0.2	4.2	0.6	4.2
	Tu	2	5:07	11:17	17:25	23:18
			0.3	4.2	0.7	4.0
	W	3	5:45	12:02	18:15	. . .
			0.4	4.3	0.7	. . .
☾	Th	4	0:09	6:32	12:54	19:12
			3.9	0.5	4.3	0.7
	F	5	1:00	7:25	13:50	20:18
			3.8	0.5	4.4	0.6
	S	6	2:07	8:28	14:52	21:22
			3.8	0.4	4.6	0.3
	S	7	3:14	9:34	15:53	22:25
			3.9	0.2	4.8	0.0
N	M	8	4:20	10:32	16:52	23:22
			4.1	0.0	5.1	—0.3
	Tu	9	5:25	11:33	17:48	. . .
			4.5	—0.3	5.5	. . .
	W	10	0:17	6:18	12:27	18:42
			—0.7	4.8	—0.6	5.7
●	Th	11	1:07	7:12	13:20	19:32
			—0.9	5.1	—0.8	5.8
P	F	12	1:56	8:02	14:12	20:22
			—1.0	5.3	—0.9	5.8
	S	13	2:45	8:50	15:03	21:11
			—1.2	5.4	—0.9	5.7
E	S	14	3:32	9:40	15:54	22:12
			—1.1	5.4	—0.7	5.4
	M	15	4:19	10:30	16:47	22:54
			—0.9	5.3	—0.5	5.1
	Tu	16	5:10	11:22	17:45	23:46
			—0.7	5.2	—0.2	4.6
☽	W	17	6:03	12:18	18:44	. . .
			—0.4	5.0	0.0	. . .
	Th	18	0:44	7:00	13:17	19:47
			4.4	—0.1	4.8	0.2
	F	19	1:48	8:00	14:17	20:47
			4.1	0.1	4.6	0.2
S	S	20	2:50	9:02	15:17	21:50
			4.0	0.2	4.6	0.2
	S	21	3:52	10:00	16:17	22:45
			4.0	0.1	4.6	0.2
	M	22	4:50	10:56	17:08	23:35
			4.0	0.1	4.8	0.0
	Tu	23	5:38	11:47	17:57	. . .
			4.2	0.0	4.8	. . .
	W	24	0:20	6:27	12:34	18:40
			—0.1	4.3	0.0	4.9
○	Th	25	1:05	7:09	13:16	19:20
			—0.2	4.4	—0.1	4.9
A	F	26	1:40	7:45	13:55	19:55
			—0.2	4.5	0.0	4.8
	S	27	2:17	8:22	14:30	20:30
			—0.2	4.5	0.1	4.7
E	S	28	2:50	8:54	15:02	21:02
			—0.1	4.5	0.2	4.5
	M	29	3:20	9:26	15:37	21:34
			0.0	4.5	0.3	4.4
	Tu	30	3:52	10:00	16:13	22:10
			0.1	4.5	0.4	4.3
	W	31	4:25	10:38	16:55	22:47
			0.2	4.5	0.4	4.1

SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	5:03	11:22	17:43	23:34
			0.4	4.5	0.5	4.0
☾	F	2	5:52	12:16	18:40	. . .
			0.5	4.4	0.5	. . .
	S	3	0:32	6:50	13:15	19:46
			3.9	0.6	4.4	0.4
N	S	4	1:40	7:55	14:21	20:55
			3.8	0.5	4.5	0.3
	M	5	2:50	9:07	15:26	22:00
			4.0	0.3	4.6	0.0
	Tu	6	4:00	10:14	16:28	22:59
			4.2	0.0	5.0	—0.3
	W	7	5:02	11:12	17:27	23:52
			4.6	—0.3	5.3	—0.7
	Th	8	5:57	12:10	18:24	. . .
			5.0	—0.7	5.6	. . .
P ●	F	9	0:43	6:48	13:05	19:12
			—0.9	5.4	—1.0	5.7
E	S	10	1:30	7:40	13:55	20:02
			—1.2	5.6	—1.1	5.7
	S	11	2:20	8:28	14:45	20:53
			—1.2	5.7	—1.1	5.6
	M	12	3:06	9:17	15:36	21:42
			—1.1	5.7	—0.9	5.4
	Tu	13	3:55	10:07	16:27	22:31
			—0.9	5.6	—0.7	5.0
	W	14	4:45	11:00	17:21	23:26
			—0.6	5.3	—0.4	4.6
	Th	15	5:36	11:51	18:20	. . .
			—0.2	5.0	—0.1	. . .
☽	F	16	0:22	6:33	12:47	19:20
			4.3	—0.1	4.7	—0.1
S	S	17	1:22	7:33	13:48	20:19
			4.0	0.3	4.5	—0.3
	S	18	2:26	8:37	14:48	21:19
			3.9	0.4	4.4	0.3
	M	19	3:27	9:37	15:47	22:14
			3.9	0.4	4.4	0.3
	Tu	20	4:22	10:32	16:40	23:04
			4.0	0.3	4.5	0.2
	W	21	5:12	11:22	17:30	23:50
			4.1	0.2	4.5	0.0
	Th	22	5:57	12:08	18:12	. . .
			4.3	0.1	4.6	. . .
A	F	23	0:30	6:36	12:51	18:50
			—0.1	4.5	0.0	4.7
○ E	S	24	1:07	7:13	13:27	19:26
			—0.2	4.6	0.0	4.6
	S	25	1:42	7:46	14:02	20:00
			—0.2	4.7	0.0	4.6
	M	26	2:14	8:29	14:37	20:35
			—0.1	4.8	0.0	4.5
	Tu	27	2:47	8:56	15:12	21:08
			0.0	4.8	0.0	4.4
	W	28	3:17	9:28	15:52	21:45
			0.1	4.7	0.1	4.3
	Th	29	3:55	10:08	16:34	22:25
			0.2	4.7	0.2	4.2
	F	30	4:33	10:54	17:25	23:14
			0.4	4.6	0.3	4.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							NOVEMBER.							DECEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	5:21	11:47	18:20	. . .		Tu	1	1:08	7:19	13:32	20:07	E	Th	1	1:55	8:15	14:17	20:42
			0.5	4.5	0.3	. . .				4.1	0.5	4.4	0.1				4.5	0.3	4.4	—0.2
☾	S	2	0:15	6:22	12:47	19:22		W	2	2:15	8:30	14:40	21:08	P	F	2	2:58	9:22	15:22	21:41
			3.9	0.6	4.4	0.3				4.3	0.4	4.5	0.1				4.7	0.1	4.5	—0.3
	M	3	1:22	7:35	13:55	20:27		Th	3	3:20	9:40	15:45	22:05		S	3	3:55	10:24	16:24	22:36
			3.9	0.6	4.5	0.2				4.6	0.1	4.7	—0.3				5.0	—0.1	4.6	—0.5
	Tu	4	2:32	8:47	15:03	21:32	E	F	4	4:18	10:40	16:45	23:00		S	4	4:52	11:20	17:22	23:30
			4.1	0.4	4.5	0.0				5.0	0.3	4.9	—0.6				5.3	—0.4	4.7	—0.7
	W	5	3:40	9:55	16:06	22:32	P	S	5	5:13	11:38	17:42	23:55		M	5	5:45	12:13	18:15	. . .
			4.4	0.0	4.8	—0.3				5.3	—0.6	5.0	—0.9				5.6	—0.7	4.8	. . .
	Th	6	4:40	10:57	17:07	23:27		S	6	6:05	12:30	18:33	. . .	●	Tu	6	0:22	6:34	13:04	19:06
			4.8	—0.3	5.1	—0.7				5.6	—0.9	5.2	. . .				—0.8	5.7	—0.8	4.8
	F	7	5:37	11:54	18:00	. . .	●	M	7	0:42	6:55	13:20	19:22		W	7	1:10	7:23	13:52	19:55
			5.2	—0.7	5.4	. . .				—1.0	5.8	—1.0	5.2				—0.7	5.8	—0.8	4.8
P	S	8	0:18	6:27	12:47	18:55		Tu	8	1:30	7:42	14:08	20:14	S	Th	8	1:59	8:10	14:38	20:42
E			—0.9	5.6	—1.0	5.5				—1.0	5.9	—1.1	5.1				—0.6	5.7	—0.8	4.7
●	S	9	1:07	7:16	13:38	19:43		W	9	2:18	8:30	15:00	21:00		F	9	2:46	8:56	15:25	21:28
			—1.1	5.8	—1.1	5.5				—0.8	5.8	—0.9	4.9				—0.4	5.5	—0.6	4.5
	M	10	1:55	8:04	14:27	20:32	S	Th	10	3:07	9:17	15:47	21:50		S	10	3:32	9:40	16:10	22:15
			—1.2	5.9	—1.2	5.4				—0.6	5.6	—0.8	4.7				—0.1	5.2	—0.5	4.4
	Tu	11	2:43	8:52	15:15	21:22		F	11	3:54	10:07	16:34	22:42		S	11	4:20	10:24	16:56	23:03
			—1.0	5.8	—1.0	5.2				—0.3	5.3	—0.5	4.4				0.2	4.9	—0.2	4.2
	W	12	3:29	9:42	16:07	22:10		S	12	4:47	10:55	17:19	23:31		M	12	5:07	11:09	17:39	23:48
			—0.8	5.6	—0.8	4.9				0.1	4.9	—0.2	4.2				0.5	4.5	0.0	4.0
	Th	13	4:20	10:30	16:58	23:03		S	13	5:37	11:44	18:09	. . .		Tu	13	5:55	11:54	18:23	. . .
			—0.5	5.3	—0.5	4.5				0.4	4.5	0.1	. . .				0.7	4.2	0.3	. . .
S	F	14	5:10	11:23	17:52	23:57	☽	M	14	0:25	6:34	12:36	19:05	☽	W	14	0:36	6:47	12:39	19:10
			—0.1	5.0	—0.2	4.2				4.0	0.7	4.3	0.3	A			4.0	0.9	4.0	0.4
	S	15	6:07	12:17	18:47	. . .		Tu	15	1:20	7:30	13:28	19:58	E	Th	15	1:25	7:39	13:30	19:59
			0.2	4.6	0.1	. . .				3.9	0.8	4.0	0.3				4.0	1.0	3.8	0.5
☽	S	16	0:55	7:05	13:12	19:45		W	16	2:15	8:30	14:24	20:50		F	16	2:14	8:34	14:20	20:46
			4.0	0.5	4.3	0.3				3.9	0.9	3.9	0.4				4.0	0.9	3.7	0.4
	M	17	1:55	8:08	14:12	20:42	A	Th	17	3:05	9:22	15:16	21:37		S	17	3:04	9:27	15:15	21:35
			3.9	0.6	4.2	0.4				4.0	0.8	3.9	0.3				4.2	0.8	3.7	0.3
	Tu	18	2:55	9:07	15:10	21:35	E	F	18	3:52	10:13	16:07	22:24		S	18	3:53	10:18	16:12	22:25
			3.9	0.7	4.1	0.3				4.2	0.6	4.0	0.2				4.4	0.5	3.9	0.2
	W	19	3:50	10:00	16:04	22:24		S	19	4:37	11:00	16:56	23:07		M	19	4:40	11:08	17:02	23:12
			4.0	0.6	4.2	0.2				4.4	0.4	4.1	0.1				4.7	0.2	4.0	0.1
A	Th	20	4:37	10:52	16:52	23:10		S	20	5:20	11:44	17:40	23:50		Tu	20	5:27	11:55	17:52	. . .
			4.2	0.4	4.2	0.1				4.7	0.2	4.2	0.0				5.0	—0.1	4.2	. . .
E	F	21	5:20	11:37	17:37	23:53		M	21	6:00	12:27	18:22	. . .		W	21	0:00	6:15	12:43	18:38
			4.4	0.2	4.3	0.0				4.9	—0.1	4.3	. . .				0.0	5.2	—0.3	4.4
	S	22	6:00	12:18	18:17	. . .	○	Tu	22	0:28	6:41	13:09	19:02	○	Th	22	0:53	7:00	13:28	19:25
			4.6	0.1	4.4	. . .				—0.1	5.1	—0.3	4.4	N			—0.2	5.4	—0.5	4.5
	S	23	0:30	6:37	12:57	18:57		W	23	1:10	7:23	13:50	19:48		F	23	1:30	7:46	14:15	20:12
			—0.1	4.8	0.0	4.5				—0.1	5.2	—0.4	4.4				—0.2	5.5	—0.6	4.6
○	M	24	1:05	7:12	13:35	19:32		Th	24	1:50	8:05	14:33	20:28		S	24	2:18	8:32	15:00	21:00
			—0.1	4.9	—0.2	4.5				—0.1	5.3	—0.4	4.5				—0.3	5.5	—0.7	4.7
	Tu	25	1:40	7:50	14:12	20:08	N	F	25	2:31	8:48	15:19	21:15		S	25	3:06	9:20	15:49	21:50
			—0.1	5.0	—0.2	4.5				0.0	5.3	—0.4	4.4				—0.2	5.4	—0.7	4.7
	W	26	2:15	8:27	14:52	20:47		S	26	3:15	9:32	16:05	22:03		M	26	3:55	10:10	16:38	22:42
			0.0	5.0	—0.3	4.4				0.1	5.1	—0.4	4.4				—0.1	5.2	—0.5	4.7
	Th	27	2:51	9:05	15:34	21:27		S	27	4:03	10:20	16:55	22:55	P	Tu	27	4:50	11:00	17:28	23:37
			0.1	5.0	—0.2	4.3				0.2	5.0	—0.3	4.3				0.0	4.9	—0.4	4.7
	F	28	3:28	9:48	16:20	22:12		M	28	4:59	11:15	17:07	23:52		W	28	5:45	11:55	18:20	. . .
			0.2	4.9	—0.1	4.2				0.3	4.7	—0.2	4.3				0.2	4.7	—0.3	. . .
N	S	29	4:15	10:36	17:10	23:04		Tu	29	6:00	12:10	18:44	. . .	E	Th	29	0:34	6:51	12:54	19:17
			0.3	4.8	0.0	4.1				0.4	4.6	—0.1	. . .	☾			4.6	0.2	4.5	—0.3
	S	30	5:06	11:30	18:02	. . .	☾	W	30	0:53	7:05	13:12	19:43		F	30	1:34	7:57	14:00	20:16
			0.5	4.6	0.1	. . .				4.4	0.4	4.4	—0.1				4.7	0.2	4.3	—0.2
☾	M	31	0:02	6:07	12:27	19:02									S	31	2:34	9:08	15:00	21:15
			4.1	0.6	4.5	0.2											4.8	0.2	4.3	—0.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	7:00 0.2	12:01 6.0	19:43 0.2	. . .
N	S	2	0:30 5.1	7:54 0.0	12:55 6.1	20:31 0.0
○	S	3	1:25 5.2	8:49 —0.1	13:46 6.2	21:30 —0.2
P	M	4	2:18 5.3	9:42 —0.2	14:38 6.3	22:22 —0.4
	Tu	5	3:10 5.3	10:36 —0.2	15:30 6.2	23:13 —0.4
	W	6	4:04 5.3	11:30 —0.2	16:22 6.0	. . .
	Th	7	0:05 —0.4	4:56 5.2	12:25 —0.1	17:15 5.8
E	F	8	0:57 —0.4	5:48 5.2	13:22 0.0	18:12 5.5
☾	S	9	1:51 —0.3	6:44 5.1	14:19 0.1	19:09 5.2
	S	10	2:44 —0.1	7:41 5.1	15:17 0.2	20:07 4.9
	M	11	3:42 0.0	8:40 5.1	16:19 0.3	21:09 4.7
	Tu	12	4:41 0.4	9:39 5.2	17:20 0.4	22:07 4.6
	W	13	5:36 0.4	10:35 5.3	18:19 0.3	23:04 4.6
	Th	14	6:29 0.4	11:28 5.4	19:12 0.3	23:55 4.6
S	F	15	7:19 0.3	12:16 5.5	20:01 0.2	. . .
	S	16	0:44 4.6	8:04 0.3	13:00 5.6	20:45 0.1
●	S	17	1:26 4.6	8:43 0.2	13:42 5.6	21:25 0.1
	M	18	2:06 4.7	9:28 0.3	14:18 5.6	22:00 0.1
A	Tu	19	2:45 4.7	10:04 0.4	14:55 5.6	22:35 0.1
	W	20	3:21 4.8	10:41 0.4	15:34 5.6	23:11 0.2
	Th	21	3:58 4.9	11:20 0.5	16:11 5.5	23:48 0.3
E	F	22	4:35 5.0	12:04 0.6	16:51 5.3	. . .
	S	23	0:26 0.4	5:15 5.0	12:47 0.6	17:34 5.2
	S	24	1:10 0.3	6:00 5.1	13:32 0.7	18:20 5.0
☽	M	25	1:54 0.4	6:46 5.2	14:22 0.8	19:10 4.9
	Tu	26	2:44 0.4	7:40 5.3	15:18 0.8	20:05 4.8
	W	27	3:49 0.5	8:38 5.4	16:18 0.8	21:05 4.7
	Th	28	4:36 0.4	9:39 5.5	17:20 0.8	22:07 4.8
N	F	29	5:36 0.4	10:40 5.7	18:21 0.5	23:09 4.9
	S	30	6:36 0.2	11:37 5.9	19:20 0.2	. . .
	S	31	0:08 5.1	7:35 0.0	12:34 6.0	20:15 0.0

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○ P	M	1	1:05 5.3	8:32 —0.2	13:27 6.2	21:09 —0.3
	Tu	2	2:00 5.4	9:27 —0.3	14:20 6.2	22:00 —0.5
	W	3	2:51 5.5	10:20 —0.4	15:11 6.2	22:51 —0.5
E	Th	4	3:42 5.5	11:13 —0.5	16:04 6.0	23:41 —0.6
	F	5	4:31 5.5	12:06 —0.4	16:56 5.7	. . .
	S	6	0:31 —0.5	5:22 5.4	12:58 —0.2	17:47 5.4
	S	7	1:22 —0.3	6:16 5.3	13:51 0.0	18:41 5.1
☾	M	8	2:17 —0.2	7:12 5.2	14:50 0.2	19:40 4.8
	Tu	9	3:15 0.0	8:10 5.2	15:51 0.3	20:42 4.6
	W	10	4:12 0.1	9:09 5.2	16:51 0.4	21:40 4.5
S	Th	11	5:08 0.2	10:06 5.2	17:51 0.4	22:37 4.4
	F	12	6:01 0.5	11:00 5.3	18:44 0.4	23:29 4.5
	S	13	6:53 0.4	11:48 5.3	19:32 0.3	. . .
	S	14	0:16 4.6	7:39 0.4	12:33 5.4	20:15 0.2
A	M	15	0:59 4.7	8:21 0.3	13:13 5.5	20:58 0.2
●	Tu	16	1:38 4.8	9:00 0.3	13:51 5.5	21:28 0.2
	W	17	2:15 4.9	9:39 0.3	14:30 5.5	22:04 0.2
	Th	18	2:50 5.0	10:15 0.3	15:05 5.5	22:40 0.2
E	F	19	3:27 5.1	10:55 0.4	15:44 5.4	23:19 0.3
	S	20	4:07 5.2	11:36 0.5	16:24 5.3	23:57 0.4
	S	21	4:47 5.3	12:20 0.6	17:05 5.1	. . .
	M	22	0:38 0.4	5:28 5.3	13:00 0.7	17:50 5.0
	Tu	23	1:22 0.5	6:14 5.3	13:51 0.8	18:48 4.8
☽	W	24	2:12 0.5	7:08 5.3	14:50 0.8	19:36 4.7
	Th	25	3:09 0.5	8:09 5.3	15:50 0.8	20:38 4.6
N	F	26	4:11 0.5	9:11 5.3	16:54 0.7	21:44 4.7
	S	27	5:14 0.5	10:15 5.5	17:57 0.5	22:48 4.9
	S	28	6:17 0.4	11:15 5.7	18:57 0.2	23:49 5.1
	M	29	7:18 0.1	12:12 5.8	19:53 —0.1	. . .

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	0:45 5.3	8:15 —0.2	13:07 6.0	20:47 —0.3
	W	2	1:36 5.5	9:10 —0.5	14:01 6.1	21:37 —0.5
E	Th	3	2:27 5.7	10:01 —0.6	14:52 6.0	22:27 —0.5
	F	4	3:18 5.7	10:52 —0.5	15:44 5.8	23:18 —0.5
	S	5	4:09 5.7	11:43 —0.5	16:35 5.6	. . .
	S	6	0:08 —0.4	4:59 5.6	12:34 —0.3	17:25 5.3
	M	7	0:59 —0.3	5:49 5.5	13:26 —0.1	18:16 5.0
☾	Tu	8	1:51 —0.1	6:40 5.3	14:22 0.1	19:13 4.7
S	W	9	2:45 0.1	7:36 5.2	15:20 0.3	20:11 4.6
	Th	10	3:40 0.2	8:34 5.1	16:19 0.4	21:10 4.4
	F	11	4:36 0.4	9:30 5.1	17:15 0.5	22:05 4.4
	S	12	5:31 0.4	10:25 5.1	18:08 0.4	22:57 4.5
	S	13	6:22 0.4	11:15 5.2	18:55 0.4	23:44 4.6
A	M	14	7:10 0.3	12:00 5.2	19:36 0.3	. . .
	Tu	15	0:26 4.8	7:53 0.3	12:44 5.3	20:18 0.2
	W	16	1:06 5.0	8:32 0.2	13:25 5.4	20:58 0.3
● E	Th	17	1:44 5.2	9:13 0.2	14:02 5.4	21:34 0.3
	F	18	2:20 5.3	9:51 0.3	14:38 5.3	22:09 0.2
	S	19	2:57 5.4	10:31 0.3	15:18 5.3	22:47 0.3
	S	20	3:36 5.5	11:11 0.4	15:57 5.2	23:26 0.4
	M	21	4:16 5.5	11:51 0.5	16:39 5.0	. . .
	Tu	22	0:08 0.4	5:00 5.5	12:39 0.6	17:25 4.9
	W	23	0:55 0.5	5:50 5.4	13:30 0.7	18:17 4.7
N ☽	Th	24	1:48 0.6	6:39 5.3	14:28 0.7	19:15 4.6
	F	25	2:48 0.7	7:45 5.2	15:29 0.7	20:18 4.6
	S	26	3:51 0.6	8:48 5.2	16:32 0.6	21:24 4.7
	S	27	4:58 0.5	9:52 5.3	17:35 0.4	22:26 4.9
	M	28	6:00 0.3	10:54 5.4	18:34 0.2	23:25 5.2
P	Tu	29	6:59 0.1	11:51 5.6	19:28 0.0	. . .
E	W	30	0:20 5.4	7:53 —0.1	12:45 5.7	20:19 —0.2
○	Th	31	1:10 5.7	8:45 —0.3	13:36 5.7	21:11 —0.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	2:02 5.8	9:37 —0.4	14:28 5.7	22:02 —0.5
	S	2	2:53 5.9	10:28 —0.5	15:20 5.5	22:51 —0.4
	S	3	3:43 5.8	11:19 —0.4	16:10 5.3	23:40 —0.3
	M	4	4:30 5.7	12:09 —0.3	17:00 5.1	. . . . . .
	Tu	5	0:27 —0.1	5:18 5.6	13:00 —0.1	17:50 4.8
S	W	6	1:18 0.0	6:08 5.4	13:53 0.1	18:43 4.6
☾	Th	7	2:10 0.2	7:00 5.2	14:46 0.3	19:36 4.5
	F	8	3:05 0.4	7:55 5.1	15:40 0.4	20:31 4.5
	S	9	4:00 0.5	8:50 5.0	16:33 0.5	21:25 4.5
A	S	10	4:54 0.5	9:45 5.0	17:23 0.5	22:15 4.6
	M	11	5:46 0.5	10:36 5.0	18:11 0.4	23:02 4.8
	Tu	12	6:35 0.4	11:25 5.0	19:00 0.4	23:50 5.0
E	W	13	7:20 0.4	12:09 5.1	19:40 0.3	. . . . . .
	Th	14	0:31 5.2	8:04 0.3	12:50 5.2	20:18 0.3
●	F	15	1:10 5.4	8:43 0.2	13:31 5.2	20:57 0.3
	S	16	1:48 5.6	9:22 0.2	14:10 5.2	21:35 0.3
	S	17	2:27 5.7	10:08 0.2	14:51 5.2	22:16 0.3
	M	18	3:09 5.8	10:42 0.3	15:35 5.1	23:00 0.4
	Tu	19	3:51 5.7	11:34 0.3	16:20 5.0	23:45 0.4
N	W	20	4:39 5.7	12:22 0.4	17:10 4.8	. . . . . .
	Th	21	0:36 0.5	5:30 5.5	13:15 0.5	18:02 4.7
☽	F	22	1:31 0.6	6:25 5.3	14:11 0.5	19:00 4.6
	S	23	2:32 0.6	7:25 5.2	15:11 0.5	20:02 4.6
	S	24	3:36 0.6	8:38 5.1	16:13 0.5	21:05 4.8
	M	25	4:40 0.5	9:30 5.1	17:12 0.3	22:06 5.0
P	Tu	26	5:41 0.3	10:32 5.2	18:09 0.2	23:05 5.3
E	W	27	6:39 0.2	11:31 5.3	19:05 0.0	23:59 5.5
	Th	28	7:35 0.1	12:27 5.4	20:01 —0.1	. . . . . .
○	F	29	0:52 5.7	8:30 —0.2	13:21 5.4	20:51 —0.3
	S	30	1:42 5.9	9:21 —0.3	14:11 5.3	21:39 —0.3

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	2:30 5.9	10:10 —0.4	15:00 5.2	22:24 —0.2
	M	2	3:15 5.9	10:58 —0.3	15:46 5.1	23:10 —0.1
S	Tu	3	4:01 5.8	11:45 —0.2	16:34 4.9	23:56 0.0
	W	4	4:48 5.6	12:32 —0.1	17:21 4.7	. . . . . .
	Th	5	0:45 0.2	5:35 5.5	13:20 0.1	18:10 4.6
	F	6	1:34 0.3	6:24 5.3	14:10 0.2	19:00 4.5
☾	S	7	2:25 0.4	7:15 5.1	14:58 0.3	19:48 4.5
A	S	8	3:18 0.6	8:08 5.0	15:46 0.4	20:38 4.6
	M	9	4:11 0.6	9:01 4.9	16:35 0.5	21:27 4.8
	Tu	10	5:01 0.7	9:52 4.9	17:26 0.5	22:18 5.0
E	W	11	5:51 0.6	10:41 4.9	18:14 0.4	23:05 5.2
	Th	12	6:39 0.5	11:29 5.0	18:57 0.4	23:49 5.4
	F	13	7:25 0.4	12:14 5.1	19:40 0.3	. . . . . .
	S	14	0:34 5.6	8:11 0.3	12:59 5.1	20:23 0.3
●	S	15	1:16 5.8	8:57 0.2	13:43 5.1	21:08 0.2
	M	16	2:01 6.0	9:43 0.1	14:30 5.1	21:52 0.3
N	Tu	17	2:46 6.0	10:30 0.1	15:16 5.1	22:40 0.3
	W	18	3:34 6.0	11:19 0.1	16:05 5.0	23:29 0.3
	Th	19	4:24 5.8	12:09 0.2	16:57 4.9	. . . . . .
	F	20	0:22 0.4	5:15 5.6	13:01 0.2	17:50 4.8
	S	21	1:19 0.4	6:11 5.4	13:56 0.3	18:46 4.7
☽ P	S	22	2:20 0.5	7:10 5.2	14:54 0.3	19:46 4.8
	M	23	3:21 0.5	8:12 5.1	15:52 0.3	20:48 4.9
E	Tu	24	4:24 0.5	9:14 5.0	16:50 0.2	21:49 5.1
	W	25	5:25 0.4	10:16 4.9	17:50 0.1	22:48 5.3
	Th	26	6:26 0.2	11:18 5.0	18:48 0.1	23:42 5.5
	F	27	7:22 0.1	12:11 5.0	19:39 0.0	. . . . . .
	S	28	0:34 5.7	8:15 —0.1	13:02 5.0	20:28 —0.1
○	S	29	1:21 5.8	9:05 —0.2	13:50 5.0	21:15 —0.1
S	M	30	2:07 5.9	9:52 —0.2	14:36 4.9	21:58 —0.1
	Tu	31	2:51 5.9	10:36 —0.2	15:21 4.8	22:42 0.0

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	3:34 5.8	11:20 —0.1	16:06 4.8	23:26 0.1
	Th	2	4:18 5.7	12:01 0.0	16:50 4.7	. . . . . .
	F	3	0:10 0.3	5:01 5.5	12:45 0.1	17:35 4.6
	S	4	0:56 0.4	5:47 5.3	13:30 0.2	18:19 4.6
A	S	5	1:45 0.6	6:34 5.2	14:12 0.3	19:04 4.7
☾	M	6	2:35 0.7	7:22 5.0	14:58 0.4	19:50 4.8
E	Tu	7	3:25 0.7	8:12 4.9	15:47 0.4	20:40 4.9
	W	8	4:15 0.7	9:03 4.8	16:37 0.5	21:30 5.1
	Th	9	5:07 0.7	9:55 4.8	17:26 0.4	22:22 5.3
	F	10	6:00 0.6	10:47 4.8	18:15 0.4	23:13 5.5
	S	11	6:52 0.5	11:38 4.9	19:09 0.3	. . . . . .
	S	12	0:03 5.8	7:44 0.3	12:29 5.0	19:54 0.2
●	M	13	0:51 6.0	8:34 0.2	13:19 5.1	20:44 0.1
N	Tu	14	1:40 6.1	9:24 0.0	14:09 5.1	21:32 0.1
	W	15	2:29 6.2	10:13 —0.1	15:00 5.1	22:24 0.0
	Th	16	3:18 6.1	11:04 —0.1	15:51 5.1	23:15 0.1
P	F	17	4:09 6.0	11:54 —0.1	16:44 5.0	. . . . . .
	S	18	0:09 0.2	5:00 5.7	12:45 —0.1	17:35 5.0
	S	19	1:05 0.2	5:56 5.5	13:40 0.0	18:30 4.9
☽ E	M	20	2:05 0.3	6:55 5.3	14:35 0.0	19:29 5.0
	Tu	21	3:04 0.4	7:54 5.0	15:30 0.1	20:30 5.0
	W	22	4:05 0.4	8:55 4.8	16:30 0.1	21:29 5.2
	Th	23	5:09 0.4	9:59 4.8	17:31 0.1	22:28 5.3
	F	24	6:10 0.3	10:58 4.7	18:25 0.1	23:24 5.4
	S	25	7:06 0.2	11:52 4.7	19:18 0.1	. . . . . .
	S	26	0:15 5.6	7:58 0.1	12:43 4.8	20:06 0.0
S ○	M	27	1:02 5.7	8:48 0.0	13:30 4.8	20:52 0.0
	Tu	28	1:46 5.8	9:33 —0.1	14:15 4.7	21:35 0.1
	W	29	2:29 5.8	10:14 —0.1	14:58 4.7	22:16 0.1
	Th	30	3:08 5.7	10:52 0.0	15:38 4.7	22:58 0.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:49	11:30	16:18	23:38	
			5.6	0.0	4.8	0.3	
	S	2	4:30	12:09	16:59	. . .	
			5.5	0.1	4.8	. . .	
A	S	3	0:20	5:10	12:48	17:37	
			0.5	5.4	0.2	4.8	
E	M	4	1:06	5:54	13:29	18:20	
			0.6	5.2	0.4	4.9	
☾	Tu	5	1:52	6:39	14:14	19:05	
			0.7	5.0	0.4	5.0	
	W	6	2:39	7:26	15:02	19:55	
			0.8	4.8	0.4	5.1	
	Th	7	3:30	8:18	15:52	20:49	
			0.8	4.7	0.5	5.2	
	F	8	4:26	9:13	16:45	21:45	
			0.8	4.7	0.5	5.4	
	S	9	5:24	10:10	17:39	22:40	
			0.7	4.8	0.4	5.6	
	S	10	6:21	11:06	18:34	23:35	
			0.6	4.9	0.3	5.8	
N	M	11	7:17	12:02	19:29	. . .	
			0.4	5.0	0.2	. . .	
	Tu	12	0:29	8:11	12:58	20:22	
			6.0	0.1	5.1	0.0	
●	W	13	1:20	9:04	13:50	21:15	
			6.2	0.1	5.2	—0.1	
P	Th	14	2:11	9:55	14:43	22:08	
			6.2	—0.3	5.3	—0.2	
	F	15	3:01	10:45	15:35	23:01	
			6.2	—0.3	5.3	—0.2	
	S	16	3:53	11:35	16:25	23:55	
			6.0	—0.4	5.3	—0.1	
E	S	17	4:45	12:26	17:16	. . .	
			5.8	—0.3	5.2	. . .	
	M	18	0:50	5:40	13:18	18:10	
			0.0	5.5	—0.3	5.2	
☽	Tu	19	1:45	6:35	14:11	19:06	
			0.1	5.3	—0.1	5.2	
	W	20	2:42	7:33	15:07	20:05	
			0.2	5.0	0.0	5.2	
	Th	21	3:45	8:35	16:09	21:07	
			0.3	4.8	0.1	5.2	
	F	22	4:48	9:37	17:08	22:07	
			0.4	4.6	0.1	5.3	
	S	23	5:50	10:37	18:04	23:03	
			0.4	4.6	0.2	5.4	
S	S	24	6:48	11:32	18:57	23:55	
			0.3	4.6	0.1	5.5	
	M	25	7:40	12:23	19:45	. . .	
			0.2	4.6	0.1	. . .	
	Tu	26	0:42	8:27	13:10	20:31	
			5.6	0.1	4.6	0.1	
○	W	27	1:25	9:09	13:51	21:13	
			5.6	0.1	4.7	0.2	
	Th	28	2:05	9:48	14:30	21:53	
			5.6	0.0	4.8	0.2	
	F	29	2:44	10:22	15:08	22:30	
			5.6	0.0	4.8	0.2	
A	S	30	3:21	10:58	15:45	23:09	
			5.6	0.1	4.9	0.3	
	S	31	3:58	11:34	16:22	23:50	
			5.5	0.2	5.0	0.4	

AUGUST.							
Moon.	Day of— W	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	4:36	12:11	17:01	. . .	
			5.3	0.3	5.0	. .	
	Tu	2	0:31	5:19	12:53	17:44	
			0.6	5.2	0.4	5.1	
	W	3	1:16	6:01	13:35	18:25	
			0.7	5.0	0.5	5.2	
☾	Th	4	2:00	6:50	14:22	19:16	
			0.7	4.8	0.5	5.2	
	F	5	2:53	7:40	15:13	20:11	
			0.8	4.7	0.5	5.3	
	S	6	3:51	8:36	16:10	21:10	
			0.8	4.7	0.5	5.4	
	S	7	4:51	9:38	17:09	22:10	
			0.8	4.7	0.4	5.5	
N	M	8	5:52	10:40	18:08	23:09	
			0.6	4.8	0.3	5.7	
	Tu	9	6:51	11:40	19:07	. . .	
			0.4	5.0	0.2	. . .	
	W	10	0:05	7:47	12:36	20:03	
			5.9	0.1	5.2	—0.1	
●	Th	11	1:00	8:40	13:30	20:59	
			6.1	—0.1	5.4	—0.2	
P	F	12	1:51	9:32	14:23	21:52	
			6.2	—0.3	5.5	—0.4	
	S	13	2:44	10:22	15:13	22:45	
			6.2	—0.5	5.6	—0.4	
E	S	14	3:37	11:11	16:02	23:37	
			6.0	—0.5	5.6	—0.4	
	M	15	4:27	12:02	16:54	. . .	
			5.8	—0.5	5.5	. . .	
	Tu	16	0:27	5:17	12:52	17:45	
			—0.3	5.5	—0.3	5.4	
☽	W	17	1:21	6:11	13:46	18:42	
			—0.1	5.2	—0.2	5.3	
	Th	18	2:20	7:10	14:45	19:40	
			0.1	4.9	0.0	5.2	
	F	19	3:21	8:12	15:45	20:40	
			0.2	4.7	0.1	5.2	
S	S	20	4:24	9:14	16:43	21:40	
			0.4	4.5	0.2	5.2	
	S	21	5:25	10:14	17:39	22:38	
			0.4	4.5	0.2	5.2	
	M	22	6:21	11:09	18:34	23:30	
			0.4	4.5	0.2	5.3	
	Tu	23	7:12	11:59	19:23	. . .	
			0.3	4.6	0.2	. . .	
	W	24	0:16	7:58	12:44	20:08	
			5.4	0.2	4.7	0.1	
○	Th	25	0:59	8:38	13:25	20:49	
			5.5	0.1	4.8	0.2	
A	F	26	1:40	9:14	14:01	21:26	
			5.5	0.1	4.9	0.1	
	S	27	2:17	9:52	14:37	22:04	
			5.5	0.1	5.1	0.2	
E	S	28	2:54	10:29	15:13	22:41	
			5.4	0.2	5.2	0.3	
	M	29	3:30	11:02	15:50	23:20	
			5.3	0.2	5.3	0.4	
	Tu	30	4:09	11:40	16:32	. . .	
			5.2	0.4	5.3	. . .	
	W	31	0:02	4:48	12:18	17:11	
			0.5	5.1	0.4	5.4	

SEPTEMBER.							
Moon.	Day of— W	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	0:41	5:28	12:59	17:50	
			0.6	5.0	0.5	5.3	
☾	F	2	1:28	6:15	13:47	18:41	
			0.7	4.8	0.5	5.3	
	S	3	2:22	7:08	14:41	19:38	
			0.8	4.7	0.6	5.3	
N	S	4	3:21	8:08	15:40	20:39	
			0.8	4.6	0.6	5.3	
	M	5	4:22	9:11	16:44	21:42	
			0.7	4.7	0.5	5.4	
	Tu	6	5:25	10:15	17:46	22:43	
			0.6	4.8	0.4	5.6	
	W	7	6:25	11:16	18:48	23:41	
			0.3	5.1	0.2	5.7	
	Th	8	7:22	12:13	19:46	. . .	
			0.1	5.4	0.0	. . .	
P ●	F	9	0:37	8:15	13:07	20:41	
			5.9	—0.2	5.6	—0.3	
E	S	10	1:32	9:07	13:58	21:32	
			6.0	—0.4	5.8	—0.4	
	S	11	2:23	9:58	14:48	22:24	
			6.0	—0.5	5.8	—0.5	
	M	12	3:14	10:49	15:38	23:14	
			5.9	—0.5	5.8	—0.5	
	Tu	13	4:04	11:39	16:29	. . .	
			5.7	—0.5	5.8	. . .	
	W	14	0:06	4:56	12:31	17:21	
			—0.4	5.4	—0.3	5.6	
	Th	15	1:00	5:50	13:25	18:15	
			—0.2	5.1	—0.2	5.5	
☽	F	16	1:56	6:41	14:20	19:11	
			0.0	4.8	0.3	5.3	
S	S	17	2:55	7:45	15:16	20:09	
			0.2	4.6	0.4	5.2	
	S	18	3:55	8:45	16:15	21:06	
			0.3	4.5	0.5	5.2	
	M	19	4:54	9:45	17:12	22:04	
			0.3	4.5	0.5	5.1	
	Tu	20	5:48	10:38	18:06	22:57	
			0.3	4.6	0.5	5.2	
	W	21	6:37	11:28	18:55	23:45	
			0.3	4.7	0.3	5.2	
	Th	22	7:20	12:12	19:40	. . .	
			0.2	4.9	0.4	. . .	
A	F	23	0:30	8:05	12:52	20:21	
			5.3	0.2	5.0	0.2	
○ E	S	24	1:11	8:44	13:29	21:00	
			5.3	0.2	5.2	0.2	
	S	25	1:48	9:18	14:05	21:38	
			5.3	0.2	5.3	0.2	
	M	26	2:23	9:51	14:40	22:15	
			5.3	0.3	5.4	0.3	
	Tu	27	3:00	10:28	15:13	22:52	
			5.2	0.3	5.5	0.4	
	W	28	3:38	11:05	15:55	23:31	
			5.1	0.4	5.6	0.5	
	Th	29	4:18	11:45	16:37	. . .	
			5.0	0.5	5.6	. . .	
	F	30	0:16	5:02	12:30	17:23	
			0.6	4.9	0.5	5.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m) and when diminished by 12 gives the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon: ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	1:05	5:50	13:21	18:15		Tu	1	2:38	7:26	15:03	19:52	E	Th	1	3:15	8:10	15:46	20:36
			0.6	4.7	0.5	5.4				0.4	4.6	0.6	5.1				0.2	4.8	0.4	4.9
☾	S	2	2:00	6:45	14:17	19:11		W	2	3:36	8:28	16:04	20:55	P	F	2	4:14	9:12	16:49	21:39
			0.5	4.6	0.5	5.3				0.4	4.7	0.6	5.1				0.3	5.0	0.4	4.8
	M	3	2:57	7:44	15:19	20:13		Th	3	4:35	9:30	17:05	21:56		S	3	5:14	10:12	17:51	22:42
			0.5	4.6	0.5	5.2				0.3	4.9	0.3	5.1				0.2	5.2	0.2	4.8
	Tu	4	3:58	8:47	16:23	21:15	E	F	4	5:33	10:30	18:06	22:57		S	4	6:15	11:10	18:51	23:40
			0.5	4.6	0.4	5.2				0.2	5.2	0.1	5.2				0.3	5.4	0.1	4.9
	W	5	4:59	9:50	17:25	22:18	P	S	5	6:31	11:27	19:05	23:56		M	5	7:09	12:05	19:47	. . .
			0.4	4.8	0.4	5.3				0.0	5.4	—0.1	5.2				0.2	5.6	—0.1	. . .
	Th	6	5:59	10:50	18:25	23:17		S	6	7:30	12:22	20:01	. . .	●	Tu	6	0:35	8:01	12:56	20:40
			0.2	5.1	0.1	5.5				—0.2	5.7	—0.3	. . .				4.9	0.1	5.8	—0.2
	F	7	6:55	11:46	19:21	. . .	●	M	7	0:53	8:22	13:15	20:55		W	7	1:26	8:51	13:45	21:30
			—0.1	5.4	—0.2	. . .				5.3	—0.4	5.8	—0.4				4.9	0.0	5.8	—0.3
P	S	8	0:13	7:48	12:40	20:17		Tu	8	1:45	9:12	14:04	21:46	S	Th	8	2:15	9:39	14:31	22:18
E			5.6	—0.3	5.7	—0.4				5.2	—0.2	5.9	—0.5				4.9	0.0	5.9	—0.4
●	S	9	1:08	8:42	13:33	21:10		W	9	2:35	10:01	14:52	22:36		F	9	3:03	10:25	15:17	23:04
			5.6	—0.5	5.8	—0.6				5.2	—0.2	5.9	—0.5				4.8	0.0	5.8	—0.4
	M	10	2:01	9:36	14:27	22:04	S	Th	10	3:25	10:49	15:40	23:26		S	10	3:49	11:11	16:02	23:48
			5.6	—0.5	5.9	—0.6				5.0	—0.2	5.8	—0.4				4.8	0.1	5.7	—0.3
	Tu	11	2:54	10:26	15:16	22:55		F	11	4:14	11:37	16:29	. . .		S	11	4:35	11:57	16:46	. . .
			5.5	—0.6	5.9	—0.6				4.9	—0.1	5.7	. . .				4.7	0.2	5.5	. . .
	W	12	3:45	11:15	16:05	23:46		S	12	0:15	5:03	12:26	17:16		M	12	0:31	5:20	12:44	17:32
			5.3	—0.5	5.8	—0.5				—0.3	4.8	—0.1	5.5				—0.2	4.7	0.2	5.3
	Th	13	4:35	12:05	16:54	. . .		S	13	1:04	5:54	13:16	18:06		Tu	13	1:15	6:05	13:31	18:20
			5.1	—0.4	5.7	. . .				—0.2	4.6	0.3	5.3				—0.1	4.6	0.4	5.1
S	F	14	0:39	5:28	12:56	17:46	☽	M	14	1:52	6:43	14:09	18:58	☽	W	14	2:00	6:49	14:20	19:07
			—0.4	4.9	—0.2	5.5				0.0	4.5	0.4	5.1	A			0.1	4.6	0.6	5.0
	S	15	1:32	6:21	13:50	18:39		Tu	15	2:42	7:32	15:02	19:51	E	Th	15	2:44	7:35	15:11	19:56
			—0.2	4.7	0.0	5.3				0.1	4.5	0.4	5.0				0.2	4.7	0.7	4.8
☽	S	16	2:26	7:16	14:45	19:35		W	16	3:30	8:21	15:56	20:45		F	16	3:32	8:24	16:00	20:46
			0.0	4.5	0.1	5.1				0.2	4.6	0.4	4.8				0.4	4.8	0.6	4.7
	M	17	3:21	8:11	15:41	20:30	A	Th	17	4:19	9 11	16:46	21:35		S	17	4:20	9:14	16:50	21:36
			0.1	4.5	0.3	5.0				0.3	4.7	0.4	4.8				0.4	5.0	0.6	4.6
	Tu	18	4:15	9:06	16:38	21:27	E	F	18	5:10	10:00	17:35	22:25		S	18	5:09	10:04	17:43	22:28
			0.2	4.5	0.3	5.0				0.5	4.8	0.5	4.8				0.4	5.2	0.6	4.6
	W	19	5:05	9:57	17:31	22:20		S	19	5:56	10:48	18:23	23:11		M	19	5:56	10:54	18:35	23:18
			0.5	4.6	0.6	5.0				0.3	5.1	0.4	4.8				0.3	5.4	0.5	4.7
A	Th	20	5:55	10:46	18:20	23:10		S	20	6:40	11:31	19:09	23:56		Tu	20	6:45	11:43	19:25	. . .
			0.5	4.7	0.6	5.0				0.3	5.3	0.4	4.8				0.3	5.6	0.3	. . .
E	F	21	6:45	11:35	19:06	23:53		M	21	7:22	12:15	19:55	. . .		W	21	0:08	7:33	12:30	20:14
			0.5	4.9	0.4	5.0				0.3	5.5	0.2	. . .				4.8	0.2	5.8	0.2
	S	22	7:25	12:15	19:50	. . .	○	Tu	22	0:40	8:04	12:58	20:39	○	Th	22	0:57	8:21	13:14	21:02
			0.4	5.1	0.2	. . .				4.9	0.3	5.7	0.2	N			4.9	0.2	6.0	0.0
	S	23	0:34	8:04	12:54	20:28		W	23	1:24	8:47	13:40	21:24		F	23	1:45	9:10	14:06	21:50
			5.0	0.3	5.3	0.1				4.9	0.2	5.8	0.1				5.0	0.1	6.0	—0.1
○	M	24	1:14	8:40	13:31	21:06		Th	24	2:07	9:30	14:25	22:09		S	24	2:35	9:59	14:54	22:38
			5.0	0.1	5.4	0.1				4.9	0.2	5.9	0.0				5.0	0.0	6.0	—0.2
	Tu	25	1:52	9:17	14:09	21:45	N	F	25	2:54	10:16	15:10	22:55		S	25	3:25	10:49	15:42	23:27
			5.0	0.3	5.6	0.1				4.9	0.2	5.9	0.0				5.0	0.1	5.9	0.2
	W	26	2:32	9:56	14:48	22:29		S	26	3:41	11:03	15:57	23:44		M	26	4:15	11:40	16:33	. . .
			5.0	0.3	5.7	0.2				4.9	0.3	5.8	0.1				5.0	0.1	5.7	. . .
	Th	27	3:14	10:36	15:30	23:12		S	27	4:30	11:54	16:47	. . .	P	Tu	27	0:16	5:05	12:35	17:25
			4.9	0.3	5.7	0.2				4.8	0.3	5.6	. . .				—0.2	5.0	0.2	5.5
	F	28	3:58	11:21	16:14	23:59		M	28	0:33	5:20	12:48	17:40		W	28	1:07	5:57	13:31	18:21
			4.9	0.3	5.7	0.3				0.1	4.8	0.3	5.4				—0.1	4.9	0.2	5.2
N	S	29	4:44	12:09	17:03	. . .		Tu	29	1:25	6:14	13:46	18:36	E	Th	29	2:00	6:53	14:29	19:18
			4.8	0.4	5.5	. . .				0.1	4.7	0.4	5.2	☾			—0.1	4.9	0.3	5.0
	S	30	0:48	5:34	13:01	17:55	☾	W	30	2:19	7:10	14:46	19:35		F	30	2:55	7:52	15:29	20:18
			0.3	4.7	0.5	5.4				0.2	4.7	0.4	5.0				0.0	5.0	0.3	4.8
☾	M	31	1:41	6:28	14:00	18:52									S	31	3:54	8:53	16:33	21:22
			0.4	4.6	0.5	5.2											0.2	5.1	0.4	4.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	0:18	6:54	13:12	19:17
			—0.2	3.1	—0.3	2.4
N	S	2	1:10	7:42	14:00	20:07
			—0.3	3.2	—0.4	2.5
○	S	3	2:00	8:31	14:50	20:57
			—0.4	3.2	—0.5	2.6
P	M	4	2:53	9:21	15:27	21:47
			—0.4	3.2	—0.5	2.6
	Tu	5	3:44	10:13	16:25	22:42
			—0.4	3.1	—0.5	2.7
	W	6	4:40	11:02	17:15	23:35
			—0.3	2.9	—0.4	2.7
	Th	7	5:36	11:56	18:08	. . .
			—0.2	2.8	—0.4	. . .
E	F	8	0:34	6:35	12:55	19:01
			2.7	—0.1	2.6	—0.3
☾	S	9	1:36	7:38	13:57	19:58
			2.7	0.0	2.4	—0.2
	S	10	2:38	8:46	15:02	20:54
			2.7	0.1	2.3	—0.1
	M	11	3:41	9:54	16:11	21:57
			2.7	0.1	2.2	—0.1
	Tu	12	4:42	11:00	17:12	22:54
			2.8	0.1	2.2	—0.1
	W	13	5:37	12:00	18:12	23:52
			2.8	0.1	2.2	—0.1
	Th	14	6:30	12:52	19:04	. . .
			2.9	0.1	2.3	. . .
S	F	15	0:40	7:17	13:37	19:50
			—0.1	2.9	0.0	2.3
	S	16	1:27	8:01	14:17	20:32
			—0.1	2.8	0.0	2.3
●	S	17	2:10	8:40	14:52	21:10
			0.0	2.8	0.0	2.3
	M	18	2:50	9:17	15:27	21:44
			0.0	2.7	—0.1	2.2
A	Tu	19	3:26	9:50	15:59	22:17
			0.1	2.6	—0.1	2.2
	W	20	4:02	10:20	16:31	22:49
			0.2	2.5	—0.1	2.3
	Th	21	4:38	10:55	17:08	23:27
			0.2	2.4	—0.1	2.3
E	F	22	5:17	11:27	17:47	. . .
			0.2	2.3	0.0	. . .
	S	23	0:07	6:02	12:10	18:28
			2.3	0.2	2.3	0.0
	S	24	0:52	6:52	12:56	19:12
			2.4	0.2	2.2	0.0
☽	M	25	1:46	7:48	13:48	20:04
			2.4	0.2	2.2	0.0
	Tu	26	2:42	8:50	14:47	21:00
			2.5	0.2	2.1	0.0
	W	27	3:41	9:52	15:52	21:58
			2.6	0.1	2.1	0.0
	Th	28	4:40	10:55	16:57	22:57
			2.7	0.0	2.2	—0.1
N	F	29	5:38	11:56	17:58	23:55
			2.9	—0.1	2.3	—0.2
	S	30	6:32	12:50	18:57	. . .
			3.0	—0.3	2.4	. . .
	S	31	0:52	7:26	13:40	19:50
			—0.4	3.1	—0.4	2.6

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○	M	1	1:46	8:17	14:30	20:41
P			—0.5	3.2	—0.5	2.7
	Tu	2	2:38	9:06	15:17	21:32
			—0.5	3.2	—0.5	2.8
	W	3	3:32	9:56	16:05	22:22
			—0.5	3.1	—0.6	2.9
E	Th	4	4:23	10:46	16:55	23:16
			—0.5	3.0	—0.5	2.8
	F	5	5:18	11:37	17:43	. . .
			—0.3	2.8	—0.4	. . .
	S	6	0:11	6:16	12:32	18:34
			2.8	—0.2	2.6	—0.3
	S	7	1:10	7:15	13:32	19:30
			2.7	0.0	2.4	—0.2
☾	M	8	2:10	8:17	14:33	20:27
			2.7	0.1	2.2	—0.1
	Tu	9	3:12	9:30	15:42	21:28
			2.7	0.2	2.2	0.0
	W	10	4:18	10:34	16:48	22:32
			2.7	0.2	2.1	0.0
S	Th	11	5:17	11:37	17:50	23:30
			2.7	0.2	2.2	0.0
	F	12	6:08	12:27	18:40	. . .
			2.7	0.2	2.2	. . .
	S	13	0:20	6:57	13:12	19:27
			0.0	2.7	0.1	2.3
	S	14	1:08	7:40	13:48	20:07
			0.0	2.7	0.0	2.3
A	M	15	1:49	8:17	14:24	20:44
			0.0	2.7	0.0	2.3
●	Tu	16	2:27	8:51	14:55	21:14
			0.0	2.6	0.0	2.4
	W	17	3:00	9:20	15:26	21:44
			0.1	2.5	—0.1	2.4
	Th	18	3:35	9:52	16:00	22:14
			0.0	2.5	—0.1	2.4
E	F	19	4:10	10:22	16:34	22:50
			0.0	2.5	—0.1	2.5
	S	20	4:48	10:57	17:18	23:27
			0.0	2.4	—0.1	2.5
	S	21	5:33	11:37	17:50	. . .
			0.0	2.3	—0.1	. . .
	M	22	0:14	6:21	12:21	18:36
			2.5	0.1	2.3	0.0
	Tu	23	1:06	7:17	13:14	19:28
			2.5	0.1	2.1	0.0
☽	W	24	2:05	8:17	14:15	20:28
			2.5	0.1	2.1	0.0
	Th	25	3:08	9:22	15:23	21:32
			2.6	0.1	2.1	0.0
N	F	26	4:12	10:30	16:33	22:37
			2.7	0.1	2.2	—0.1
	S	27	5:15	11:31	17:39	23:39
			2.8	—0.1	2.3	—0.2
	S	28	6:15	12:27	18:37	. . .
			2.9	—0.2	2.5	. . .
	M	29	0:37	7:08	13:20	19:32
			—0.4	3.0	—0.4	2.7

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MARCH.			
P	Tu	1	1:32	8:00	14:07	20:23
○			—0.5	3.1	—0.5	2.9
	W	2	2:24	8:50	14:54	21:12
			—0.5	3.1	—0.6	3.1
E	Th	3	3:17	9:39	15:40	22:03
			—0.6	3.0	—0.6	3.0
	F	4	4:08	10:27	16:27	22:53
			—0.5	2.9	—0.5	3.0
	S	5	4:58	11:15	17:16	23:46
			—0.4	2.7	—0.4	2.9
	S	6	5:52	12:07	18:04	. . .
			—0.2	2.5	—0.2	. . .
	M	7	0:40	6:48	13:04	19:00
			2.8	0.0	2.3	—0.1
☾	Tu	8	1:40	7:48	14:05	19:57
			2.7	0.1	2.2	0.0
S	W	9	2:45	8:56	15:14	21:00
			2.6	0.3	2.1	0.1
	Th	10	3:46	10:00	16:20	22:03
			2.5	0.3	2.1	0.2
	F	11	4:47	11:00	17:22	23:05
			2.5	0.3	2.2	0.2
	S	12	5:42	11:51	18:12	23:57
			2.5	0.2	2.2	0.1
	S	13	6:30	12:35	18:57	. . .
			2.5	0.1	2.3	. . .
A	M	14	0:44	7:12	13:13	19:35
			0.1	2.6	0.0	2.4
	Tu	15	1:25	7:50	13:47	20:10
			0.0	2.6	0.0	2.4
	W	16	2:02	8:21	14:20	20:40
			0.0	2.5	—0.1	2.5
●	Th	17	2:36	8:52	14:52	21:10
E			—0.1	2.5	—0.1	2.6
	F	18	3:10	9:22	15:25	21:42
			—0.1	2.5	—0.1	2.6
	S	19	3:46	9:55	16:00	22:20
			—0.1	2.5	—0.1	2.7
	S	20	4:25	10:30	16:35	22:56
			—0.1	2.4	—0.1	2.7
	M	21	5:10	11:10	17:17	23:43
			—0.1	2.4	—0.1	2.6
	Tu	22	5:57	11:57	18:06	. . .
			0.0	2.3	0.0	. . .
	W	23	0:37	6:52	12:51	19:00
			2.6	0.0	2.2	0.0
N	Th	24	1:35	7:54	13:54	20:05
☽			2.6	0.1	2.2	0.1
	F	25	2:42	8:57	15:05	21:12
			2.5	0.1	2.2	0.0
	S	26	3:50	10:04	16:19	22:20
			2.6	0.0	2.3	—0.1
	S	27	4:57	11:06	17:21	23:25
			2.7	—0.1	2.5	—0.2
	M	28	5:57	12:03	18:20	. . .
			2.8	—0.2	2.7	. . .
P	Tu	29	0:25	6:53	12:56	19:14
			—0.3	2.9	—0.4	2.9
E	W	30	1:20	7:44	13:46	20:03
			—0.5	2.9	—0.5	3.0
○	Th	31	2:12	8:33	14:30	20:52
			—0.6	2.9	—0.5	3.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	3:01	9:21	15:15	21:40
			—0.5	2.9	—0.5	3.1
	S	2	3:49	10:08	16:01	22:29
			—0.5	2.8	—0.4	3.0
	S	3	4:39	10:54	16:50	23:20
			—0.3	2.6	—0.3	2.9
	M	4	5:28	11:44	17:37	. . .
			—0.2	2.4	—0.1	. . .
	Tu	5	0:12	6:21	12:38	18:30
			2.8	0.0	2.3	0.0
S	W	6	1:07	7:15	13:37	19:28
			2.6	0.1	2.2	0.2
☾	Th	7	2:07	8:14	14:42	20:29
			2.4	0.2	2.1	0.3
	F	8	3:10	9:16	15:47	21:32
			2.3	0.3	2.1	0.3
	S	9	4:10	10:17	16:45	22:33
			2.3	0.3	2.2	0.3
A	S	10	5:05	11:05	17:35	23:26
			2.3	0.2	2.3	0.2
	M	11	5:54	11:50	18:20	. . .
			2.4	0.1	2.4	. . .
	Tu	12	0:13	6:37	12:30	18:57
			0.1	2.4	0.0	2.5
E	W	13	1:54	7:15	13:07	19:31
			0.0	2.4	0.0	2.6
	Th	14	1:30	7:48	13:42	20:02
			—0.1	2.5	—0.1	2.7
●	F	15	2:10	8:22	14:17	20:37
			—0.1	2.5	—0.1	2.7
	S	16	2:45	8:55	14:50	21:12
			—0.2	2.5	—0.2	2.8
	S	17	3:24	9:30	15:27	21:50
			—0.2	2.5	—0.2	2.8
	M	18	4:06	10:09	16:07	22:36
			—0.2	2.4	—0.2	2.8
	Tu	19	4:51	10:52	16:52	23:20
			—0.2	2.4	—0.1	2.8
N	W	20	5:40	11:40	17:42	. . .
			—0.2	2.3	0.0	. . .
	Th	21	0:14	6:32	12:37	18:42
			2.7	—0.1	2.3	0.0
☽	F	22	1:15	7:32	13:42	19:47
			2.6	0.0	2.2	0.1
	S	23	2:20	8:34	14:55	20:57
			2.5	0.0	2.3	0.1
	S	24	3:30	9:40	16:04	22:07
			2.5	0.0	2.4	0.0
	M	25	4:37	10:40	17:07	23:13
			2.5	—0.1	2.6	—0.2
P	Tu	26	5:40	11:37	18:04	. . .
			2.6	—0.2	2.8	. . .
E	W	27	0:12	6:37	12:31	18:57
			—0.3	2.7	—0.3	3.0
	Th	28	1:07	7:27	13:20	19:47
			—0.4	2.7	—0.4	3.1
○	F	29	1:57	8:14	14:06	20:32
			—0.5	2.7	—0.4	3.1
	S	30	2:45	9:02	14:52	21:20
			—0.5	2.7	—0.4	3.1

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	3:32	9:50	15:38	22:06
			—0.4	2.6	—0.3	3.0
	M	2	4:18	10:34	16:22	22:52
			—0.3	2.5	—0.2	2.9
S	Tu	3	5:04	11:22	17:10	23:41
			—0.1	2.3	0.0	2.7
	W	4	5:51	12:13	18:00	. . .
			0.0	2.2	0.1	. . .
	Th	5	0:32	6:42	13:10	18:56
			2.5	0.1	2.1	0.3
	F	6	1:27	7:34	14:07	19:55
			2.3	0.2	2.1	0.4
☾	S	7	2:22	8:26	15:07	20:55
			2.2	0.2	2.1	0.4
A	S	8	3:20	9:20	16:02	21:52
			2.2	0.2	2.2	0.4
	M	9	4:16	10:12	16:52	22:48
			2.2	0.2	2.3	0.3
	Tu	10	5:06	10:58	17:35	23:36
			2.2	0.1	2.4	0.2
E	W	11	5:52	11:42	18:15	. . .
			2.2	0.1	2.5	. . .
	Th	12	0:18	6:34	12:25	18:52
			0.1	2.3	0.0	2.7
	F	13	1:00	7:11	13:04	19:30
			—0.1	2.3	—0.1	2.8
	S	14	1:42	7:49	13:42	20:08
			—0.2	2.4	—0.2	2.9
●	S	15	2:22	8:28	14:22	20:48
			—0.3	2.4	—0.2	3.0
	M	16	3:04	9:08	15:02	21:30
			—0.3	2.4	—0.2	3.0
N	Tu	17	3:49	9:52	15:46	22:15
			—0.3	2.4	—0.2	2.9
	W	18	4:35	10:38	16:35	23:03
			—0.3	2.4	—0.1	2.8
	Th	19	5:25	11:30	17:27	23:57
			—0.3	2.4	—0.1	2.7
	F	20	6:17	12:28	18:28	. . .
			—0.2	2.3	0.0	. . .
	S	21	0:56	7:13	18:33	19:31
			2.6	—0.1	2.4	0.1
☽	S	22	2:00	8:14	14:43	20:46
P			2.5	—0.1	2.4	0.0
	M	23	3:10	9:14	15:47	21:54
			2.4	—0.1	2.5	0.0
E	Tu	24	4:18	10:15	16:50	23:02
			2.4	—0.1	2.7	—0.1
	W	25	5:21	11:13	17:46	. . .
			2.4	—0.2	2.9	. . .
	Th	26	0:00	6:18	12:05	18:38
			—0.2	2.5	—0.2	3.0
	F	27	0:55	7:11	12:56	19:28
			—0.2	2.5	—0.3	3.1
	S	28	1:45	8:00	13:43	20:15
			—0.3	2.5	—0.3	3.1
○	S	29	2:32	8:47	14:30	21:01
			—0.3	2.5	—0.3	3.1
S	M	30	3:17	9:32	15:15	21:46
			—0.3	2.4	—0.2	2.9
	Tu	31	3:59	10:15	16:00	22:28
			—0.2	2.4	—0.1	2.8

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	4:40	11:00	16:45	23:12
			—0.1	2.3	0.1	2.6
	Th	2	5:22	11:46	17:30	23:57
			0.0	2.2	0.2	2.4
	F	3	6:07	12:36	18:20	. . .
			0.0	2.2	0.3	. . .
	S	4	0:40	6:52	13:27	19:11
			2.3	0.1	2.1	0.4
A	S	5	1:28	7:38	14:18	20:05
			2.2	0.1	2.1	0.4
☾	M	6	2:20	8:27	15:10	21:03
			2.1	0.2	2.2	0.4
E	Tu	7	3:14	9:16	16:00	22:00
			2.1	0.2	2.3	0.3
	W	8	4:07	10:06	16:46	22:50
			2.1	0.1	2.5	0.2
	Th	9	5:00	10:55	17:32	23:42
			2.1	0.1	2.6	0.1
	F	10	5:48	11:41	18:18	. . .
			2.2	0.0	2.8	. . .
	S	11	0:28	6:35	12:28	19:00
			—0.1	2.3	—0.1	2.9
	S	12	1:15	7:21	13:12	19:43
			—0.2	2.3	—0.2	3.0
●	M	13	2:00	8:05	13:57	20:28
			—0.3	2.4	—0.2	3.1
N	Tu	14	2:45	8:50	14:43	21:14
			—0.4	2.5	—0.3	3.1
	W	15	3:22	9:36	15:32	22:00
			—0.4	2.5	—0.3	3.0
	Th	16	4:18	10:26	16:24	22:50
			—0.4	2.5	—0.2	2.9
P	F	17	5:08	11:20	17:18	23:42
			—0.4	2.5	—0.1	2.8
	S	18	6:00	12:19	18:17	. . .
			—0.3	2.5	—0.1	. . .
	S	19	0:42	6:54	13:19	19:20
			2.6	—0.2	2.5	0.0
☽	M	20	1:42	7:50	14:25	20:28
E			2.5	—0.2	2.6	0.0
	Tu	21	2:48	8:48	15:29	21:37
			2.4	—0.1	2.7	0.1
	W	22	3:56	9:48	16:30	22:44
			2.3	—0.1	2.8	0.0
	Th	23	5:00	10:47	17:29	23:47
			2.3	—0.1	2.9	0.0
	F	24	6:00	11:43	18:23	. . .
			2.3	—0.2	3.0	. . .
	S	25	0:44	6:56	12:35	19:13
			—0.1	2.4	—0.2	3.0
	S	26	1:33	7:46	13:25	20:00
			—0.1	2.4	—0.2	3.0
S	M	27	2:17	8:32	14:11	20:44
○			—0.1	2.4	—0.2	3.0
	Tu	28	3:00	9:15	14:55	21:27
			—0.1	2.3	—0.1	2.9
	W	29	3:38	9:58	15:39	22:06
			—0.1	2.3	0.0	2.7
	Th	30	4:16	10:37	16:20	22:44
			—0.1	2.3	0.1	2.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts of this region, and which is 1.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:53	11:19	17:00	23:20	
			0.0	2.2	0.2	2.4	
	S	2	5:30	11:54	17:42	23:57	
			0.0	2.2	0.3	2.3	
A	S	3	6:11	12:38	18:26	. . .	
			0.0	2.2	0.3	. . .	
E	M	4	0:37	6:52	13:24	19:16	
			2.2	0.1	2.2	0.4	
☾	Tu	5	1:21	7:37	14:14	20:10	
			2.1	0.1	2.3	0.4	
	W	6	2:12	8:25	15:06	21:09	
			2.1	0.1	2.4	0.3	
	Th	7	3:08	9:17	15:58	22:07	
			2.0	0.1	2.5	0.2	
	F	8	4:10	10:11	16:51	23:02	
			2.1	0.0	2.6	0.1	
	S	9	5:05	11:04	17:42	23:56	
			2.1	0.0	2.8	0.0	
	S	10	6:04	11:55	18:33	. . .	
			2.2	—0.1	2.9	. . .	
N	M	11	0:48	6:53	12:46	19:22	
			—0.2	2.3	—0.2	3.1	
	Tu	12	1:38	7:43	13:37	20:08	
			—0.3	2.4	—0.3	3.1	
●	W	13	2:27	8:33	14:27	20:59	
			—0.4	2.5	—0.4	3.1	
P	Th	14	3:12	9:22	15:18	21:47	
			—0.5	2.6	—0.4	3.1	
	F	15	4:00	10:13	16:12	22:37	
			—0.5	2.7	—0.4	3.0	
	S	16	4:49	11:05	17:05	23:27	
			—0.5	2.7	—0.3	2.8	
E	S	17	5:40	12:01	18:02	. . .	
			—0.4	2.7	—0.2	. . .	
	M	18	0:22	6:30	13:00	19:03	
			2.7	—0.3	2.7	—0.1	
☽	Tu	19	1:20	7:25	14:02	20:09	
			2.5	—0.2	2.7	0.0	
	W	20	2:25	8:22	15:05	21:17	
			2.3	—0.1	2.7	0.1	
	Th	21	3:32	9:25	16:09	22:26	
			2.2	—0.1	2.8	—0.2	
	F	22	4:40	10:24	17:10	23:33	
			2.2	—0.1	2.8	—0.1	
	S	23	5:42	11:23	18:07	. . .	
			2.2	—0.1	2.9	. . .	
S	S	24	0:26	6:40	12:19	18:57	
			—0.1	2.3	—0.1	2.9	
	M	25	1:16	7:30	13:08	19:44	
			0.0	2.3	—0.1	2.9	
	Tu	26	2:00	8:16	13:55	20:26	
			0.0	2.4	—0.1	2.8	
○	W	27	2:38	8:57	14:38	21:05	
			—0.1	2.4	0.0	2.8	
	Th	28	3:15	9:34	15:17	21:42	
			—0.1	2.3	0.0	2.6	
	F	29	3:48	10:10	15:55	22:14	
			—0.1	2.3	0.1	2.5	
A	S	30	4:21	10:42	16:30	22:45	
			—0.1	2.3	0.1	2.4	
	S	31	4:54	11:15	17:08	23:17	
			—0.1	2.3	0.2	2.3	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	5:32	11:52	17:48	23:55	
			0.0	2.3	0.2	2.3	
	Tu	2	6:10	12:34	18:32	. . .	
			0.0	2.4	0.2	. . .	
	W	3	0:36	6:52	13:23	19:25	
			2.2	0.1	2.4	0.2	
☾	Th	4	1:24	7:40	14:17	20:24	
			2.1	0.1	2.4	0.2	
	F	5	2:22	8:35	15:15	21:26	
			2.1	0.1	2.5	0.2	
	S	6	3:22	9:32	16:15	22:28	
			2.1	0.0	2.6	0.1	
	S	7	4:28	10:32	17:12	23:28	
			2.1	0.0	2.7	0.0	
N	M	8	5:33	11:30	18:08	. . .	
			2.2	0.1	2.9	. . .	
	Tu	9	0:24	6:30	12:27	19:08	
			—0.2	2.4	—0.3	3.0	
	W	10	1:16	7:25	13:22	19:53	
			—0.3	2.5	—0.4	3.1	
●	Th	11	2:05	8:15	14:14	20:42	
			—0.4	2.7	—0.5	3.1	
P	F	12	2:52	9:05	15:05	21:31	
			—0.5	2.8	—0.5	3.1	
	S	13	3:40	9:58	15:57	22:20	
			—0.6	2.9	—0.5	3.0	
E	S	14	4:26	10:47	16:50	23:10	
			—0.5	2.9	—0.4	2.8	
	M	15	5:15	11:40	17:46	. . .	
			—0.5	2.9	—0.3	. . .	
	Tu	16	0:01	6:05	12:37	18:44	
			2.7	—0.3	2.8	—0.1	
☽	W	17	0:58	7:00	13:37	19:46	
			2.5	—0.2	2.8	0.0	
	Th	18	2:00	7:57	14:42	20:54	
			2.3	—0.1	2.7	0.2	
	F	19	3:08	9:00	15:46	22:02	
			2.2	0.0	2.7	0.2	
S	S	20	4:19	10:02	16:50	23:07	
			2.2	0.0	2.7	0.2	
	S	21	5:24	11:06	17:46	. . .	
			2.2	0.0	2.7	. . .	
	M	22	0:04	6:20	12:01	18:38	
			0.1	2.3	0.0	2.8	
	Tu	23	0:52	7:08	12:52	19:25	
			0.1	2.3	0.0	2.7	
	W	24	1:34	7:55	13:38	20:06	
			0.0	2.4	0.0	2.7	
○	Th	25	2:10	8:31	14:17	20:42	
			0.0	2.4	0.0	2.6	
A	F	26	2:45	9:05	14:54	21:15	
			—0.1	2.4	0.0	2.6	
	S	27	3:17	9:36	15:28	21:44	
			—0.1	2.4	0.0	2.5	
E	S	28	3:47	10:05	16:00	22:17	
			—0.1	2.4	0.0	2.4	
	M	29	4:18	10:39	16:36	22:44	
			—0.1	2.5	0.0	2.4	
	Tu	30	4:53	11:12	17:16	23:19	
			—0.1	2.5	0.1	2.3	
	W	31	5:30	11:54	18:00	. . .	
			0.0	2.5	0.1	. . .	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	0:00	6:13	12:42	18:52	
			2.2	0.0	2.5	0.1	
☾	F	2	0:50	7:04	13:37	19:50	
			2.2	0.1	2.5	0.2	
	S	3	1:45	8:00	14:37	20:52	
			2.1	0.1	2.5	0.2	
N	S	4	2:52	9:04	15:42	21:57	
			2.1	0.1	2.6	0.1	
	M	5	4:01	10:07	16:47	23:00	
			2.2	0.0	2.7	0.0	
	Tu	6	5:10	11:12	17:47	23:58	
			2.3	—0.1	2.8	—0.2	
	W	7	6:10	12:10	18:42	. . .	
			2.5	—0.3	2.9	. . .	
	Th	8	0:50	7:04	13:07	19:34	
			—0.3	2.7	—0.4	3.0	
P	F	9	1:41	7:56	14:00	20:25	
●			—0.5	2.9	—0.6	3.1	
E	S	10	2:29	8:45	14:52	21:12	
			—0.5	3.0	—0.6	3.0	
	S	11	3:17	9:35	15:41	22:00	
			—0.6	3.1	—0.6	2.9	
	M	12	4:02	10:25	16:32	22:50	
			—0.5	3.1	—0.5	2.8	
	Tu	13	4:48	11:16	17:25	23:40	
			—0.4	3.0	—0.3	2.6	
	W	14	5:40	12:12	18:20	. . .	
			—0.3	2.9	—0.1	. . .	
	Th	15	0:36	6:32	13:10	19:20	
			2.4	—0.2	2.8	0.0	
☽	F	16	1:37	7:30	14:12	20:24	
			2.2	0.0	2.6	0.2	
S	S	17	2:45	8:35	15:19	21:30	
			2.2	0.1	2.6	0.2	
	S	18	3:55	9:40	16:22	22:33	
			2.2	0.1	2.5	0.2	
	M	19	4:57	10:45	17:20	23:30	
			2.2	0.1	2.5	0.2	
	Tu	20	5:55	11:44	18:16	. . .	
			2.3	0.1	2.6	. . .	
	W	21	0:18	6:42	12:32	19:00	
			0.1	2.4	0.1	2.6	
	Th	22	1:00	7:22	13:14	19:40	
			0.0	2.5	0.0	2.6	
A	F	23	1:35	7:58	13:54	20:15	
			0.0	2.5	0.0	2.5	
○	S	24	2:08	8:31	14:27	20:44	
E			—0.1	2.5	0.0	2.5	
	S	25	2:40	9:00	15:00	21:15	
			—0.1	2.6	—0.1	2.4	
	M	26	3:11	9:30	15:33	21:42	
			—0.1	2.6	—0.1	2.4	
	Tu	27	3:42	10:02	16:10	22:14	
			—0.1	2.6	—0.1	2.4	
	W	28	4:18	10:38	16:50	22:52	
			—0.1	2.6	—0.1	2.3	
	Th	29	4:55	11:20	17:35	23:34	
			0.0	2.6	0.0	2.3	
	F	30	5:41	12:08	18:27	. . .	
			0.0	2.6	0.0	. . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts of this region, and which is 1.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	0:25	6:32	13:05	19:22	
			2.2	0.1	2.5	0.1	
☾	S	2	1:24	7:33	14:07	20:24	
			2.2	0.1	2.5	0.1	
	M	3	2:31	8:40	15:15	21:29	
			2.2	0.1	2.5	0.1	
	Tu	4	3:42	9:48	16:22	22:32	
			2.2	0.0	2.6	0.0	
	W	5	4:50	10:58	17:25	23:32	
			2.4	—0.1	2.7	—0.2	
	Th	6	5:50	11:55	18:22	. . .	
			2.6	—0.3	2.8	. . .	
	F	7	0:25	6:45	12:52	19:16	
			—0.3	2.8	—0.5	2.9	
P E	S	8	1:16	7:36	13:45	20:06	
			—0.4	3.0	—0.6	2.9	
●	S	9	2:02	8:25	14:35	20:53	
			—0.5	3.1	—0.6	2.9	
	M	10	2:50	9:14	15:25	21:42	
			—0.5	3.2	—0.6	2.8	
	Tu	11	3:36	10:02	16:14	22:30	
			—0.5	3.1	—0.5	2.7	
	W	12	4:24	10:52	17:04	23:20	
			—0.4	3.0	—0.3	2.5	
	Th	13	5:15	11:46	17:57	. . .	
			—0.2	2.9	—0.1	. . .	
S	F	14	0:14	6:06	12:42	18:55	
			2.4	—0.1	2.7	0.0	
	S	15	1:14	7:05	13:42	19:50	
			2.2	0.1	2.5	0.1	
☽	S	16	2:18	8:07	14:45	20:52	
			2.2	0.2	2.4	0.2	
	M	17	3:25	9:14	15:48	21:52	
			2.2	0.3	2.3	0.2	
	Tu	18	4:27	10:17	16:47	22:47	
			2.2	0.2	2.3	0.2	
	W	19	5:20	11:12	17:40	23:35	
			2.3	0.2	2.4	0.1	
A	Th	20	6:07	12:02	18:25	. . .	
			2.4	0.1	2.4	. . .	
E	F	21	0:16	6:46	12:45	19:05	
			0.1	2.5	0.1	2.4	
	S	22	0:54	7:21	13:24	19:40	
			0.0	2.6	0.0	2.4	
	S	23	1:30	7:55	14:00	20:14	
			0.0	2.6	—0.1	2.4	
○	M	24	2:04	8:26	14:34	20:42	
			—0.1	2.7	—0.1	2.4	
	Tu	25	2:35	9:00	15:10	21:15	
			—0.1	2.7	—0.2	2.4	
	W	26	3:10	9:34	15:48	21:50	
			—0.1	2.8	—0.2	2.4	
	Th	27	3:47	10:12	16:30	22:30	
			—0.1	2.8	—0.2	2.3	
	F	28	4:28	10:57	17:16	23:15	
			—0.1	2.7	—0.1	2.3	
N	S	29	5:18	11:45	18:07	. . .	
			0.0	2.7	—0.1	. . .	
	S	30	0:10	6:12	12:42	19:00	
			2.3	0.1	2.6	0.0	
☾	M	31	1:10	7:15	13:45	20:00	
			2.2	0.1	2.5	0.0	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	2:20	8:22	14:50	21:03	
			2.3	0.1	2.4	0.0	
	W	2	3:27	9:32	16:00	22:04	
			2.4	0.0	2.5	—0.1	
	Th	3	4:32	10:40	17:05	23:03	
			2.5	—0.1	2.5	—0.1	
E	F	4	5:34	11:42	18:02	. . .	
			2.7	—0.2	2.6	. . .	
P	S	5	0:00	6:27	12:37	18:57	
			—0.3	2.9	—0.4	2.7	
	S	6	0:50	7:18	13:30	19:48	
			—0.4	3.1	—0.5	2.7	
●	M	7	1:39	8:06	14:20	20:37	
			—0.4	3.2	—0.5	2.7	
	Tu	8	2:27	8:53	15:10	21:24	
			—0.4	3.2	—0.5	2.6	
	W	9	3:14	9:42	15:57	22:12	
			—0.4	3.1	—0.4	2.5	
S	Th	10	4:00	10:32	16:45	23:00	
			—0.3	3.0	—0.3	2.4	
	F	11	4:50	11:20	17:32	23:52	
			—0.1	2.8	—0.1	2.3	
	S	12	5:42	12:12	18:23	. . .	
			0.0	2.6	0.0	. . .	
	S	13	0:50	6:38	13:07	19:16	
			2.2	0.2	2.4	0.1	
☽	M	14	1:48	7:36	14:05	20:10	
			2.2	0.3	2.3	0.2	
	Tu	15	2:29	8:40	15:04	21:04	
			2.2	0.3	2.2	0.2	
	W	16	3:46	9:40	16:00	21:55	
			2.2	0.4	2.2	0.2	
A	Th	17	4:37	10:36	16:55	22:45	
			2.3	0.3	2.2	0.2	
E	F	18	5:22	11:25	17:42	23:27	
			2.4	0.2	2.2	0.1	
	S	19	6:05	12:08	18:22	. . .	
			2.5	0.1	2.2	. . .	
	S	20	0:08	6:42	12:50	19:02	
			0.0	2.6	0.0	2.3	
	M	21	0:50	7:18	13:28	19:37	
			0.0	2.7	—0.1	2.3	
○	Tu	22	1:27	7:54	14:07	20:14	
			—0.1	2.8	—0.2	2.3	
	W	23	2:04	8:32	14:47	20:52	
			—0.1	2.9	—0.3	2.3	
	Th	24	2:43	9:12	15:30	21:32	
			—0.1	2.9	—0.3	2.4	
N	F	25	3:25	9:54	16:12	22:17	
			—0.1	2.9	—0.3	2.4	
	S	26	4:10	10:40	17:00	23:04	
			—0.1	2.8	—0.3	2.4	
	S	27	5:00	11:28	17:48	. . .	
			—0.1	2.7	—0.2	. . .	
	M	28	0:00	5:57	12:23	18:42	
			2.4	0.0	2.6	—0.1	
	Tu	29	1:00	7:00	13:24	19:40	
			2.4	0.0	2.5	—0.1	
☾	W	30	2:03	8:07	14:28	20:38	
			2.4	0.1	2.4	—0.1	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	3:11	9:16	15:37	21:38	
			2.5	0.0	2.4	—0.1	
P	F	2	4:14	10:24	16:42	22:37	
			2.7	0.0	2.4	—0.1	
	S	3	5:13	11:27	17:45	23:33	
			2.8	—0.1	2.4	—0.2	
	S	4	6:10	12:27	18:40	. . .	
			3.0	—0.2	2.5	. . .	
	M	5	0:27	7:00	13:18	19:32	
			—0.3	3.1	—0.3	2.5	
●	Tu	6	1:17	7:50	14:08	20:22	
			—0.3	3.2	—0.3	2.5	
	W	7	2:06	8:40	14:55	21:10	
			—0.3	3.1	—0.3	2.5	
S	Th	8	2:54	9:25	15:40	21:55	
			—0.3	3.1	—0.3	2.4	
	F	9	3:40	10:11	16:25	22:42	
			—0.2	2.9	—0.2	2.4	
	S	10	4:27	10:56	17:10	23:30	
			0.0	2.8	—0.1	2.3	
	S	11	5:15	11:42	17:52	. . .	
			0.1	2.6	0.0	. . .	
	M	12	0:20	6:06	12:30	18:37	
			2.3	0.2	2.4	0.0	
	Tu	13	1:12	7:00	13:17	19:22	
			2.2	0.3	2.2	0.1	
☽ A	W	14	2:05	7:54	14:08	20:12	
			2.2	0.4	2.1	0.2	
E	Th	15	2:56	8:51	15:00	21:00	
			2.2	0.4	2.0	0.2	
	F	16	3:47	9:44	15:54	21:50	
			2.3	0.4	2.0	0.2	
	S	17	4:35	10:37	16:45	22:40	
			2.4	0.4	2.0	0.1	
	S	18	5:18	11:26	17:35	23:25	
			2.5	0.2	2.1	0.0	
	M	19	6:02	12:14	18:20	. . .	
			2.7	0.1	2.2	. . .	
	Tu	20	0:10	6:45	12:59	19:04	
			0.0	2.8	—0.1	2.2	
	W	21	0:57	7:27	13:42	19:48	
			—0.2	2.9	—0.2	2.3	
○ N	Th	22	1:37	8:10	14:26	20:31	
			—0.2	3.0	—0.3	2.4	
	F	23	2:22	8:53	15:10	21:16	
			—0.2	3.0	—0.4	2.4	
	S	24	3:09	9:37	15:56	22:02	
			—0.2	3.0	—0.4	2.5	
	S	25	3:57	10:25	16:42	22:52	
			—0.2	2.9	—0.4	2.5	
	M	26	4:49	11:14	17:32	23:46	
			—0.2	2.8	—0.3	2.5	
P	Tu	27	5:47	12:07	18:22	. . .	
			—0.1	2.7	—0.3	. . .	
	W	28	0:46	6:48	13:05	19:16	
			2.5	0.0	2.5	—0.2	
E ☾	Th	29	1:47	7:51	14:06	20:14	
			2.6	0.0	2.4	—0.1	
	F	30	2:52	8:58	15:14	21:12	
			2.6	0.1	2.3	—0.1	
	S	31	3:55	10:07	16:22	22:12	
			2.7	0.1	2.2	—0.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts of this region, and which is 1.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	0:10	5:43	12:11	18:20
			—0.1	2.6	0.1	3.2
N	S	2	1:09	6:47	13:11	19:19
			—0.2	2.7	0.0	3.3
○	S	3	2:04	7:48	14:08	20:12
			—0.3	2.8	—0.1	3.3
P	M	4	2:56	8:43	15:05	21:05
			—0.3	2.9	—0.1	3.3
	Tu	5	3:46	9:35	16:00	21:57
			—0.4	3.0	—0.1	3.3
	W	6	4:37	10:28	16:55	22:50
			—0.3	3.0	—0.1	3.3
	Th	7	5:28	11:22	17:52	23:43
			—0.3	3.0	—0.1	3.1
E	F	8	6:21	12:17	18:52	. . .
			—0.2	3.0	0.0	. . .
☾	S	9	0:38	7:15	13:13	19:53
			2.9	—0.1	2.9	0.1
	S	10	1:35	8:11	14:10	20:55
			2.7	0.0	2.9	0.1
	M	11	2:34	9:08	15:07	21:51
			2.5	0.1	2.8	0.2
	Tu	12	3:37	10:05	16:05	22:54
			2.4	0.1	2.8	0.2
	W	13	4:38	11:01	17:00	23:48
			2.4	0.1	2.9	0.1
	Th	14	5:36	11:54	17:51	. . .
			2.4	0.1	2.9	. . .
S	F	15	0:39	6:28	12:45	18:39
			0.1	2.4	0.1	2.9
	S	16	1:26	7:15	13:32	19:24
			0.0	2.5	0.1	2.9
●	S	17	2:10	7:57	14:16	20:07
			—0.1	2.5	0.1	3.0
	M	18	2:51	8:36	14:58	20:46
			—0.1	2.6	0.1	3.0
A	Tu	19	3:28	9:14	15:38	21:24
			—0.1	2.7	0.1	2.9
	W	20	4:05	9:50	16:16	22:01
			—0.1	2.7	0.1	2.9
	Th	21	4:42	10:27	16:54	22:40
			0.0	2.8	0.2	2.9
E	F	22	5:18	11:06	17:33	23:18
			0.0	2.8	0.2	2.8
	S	23	5:54	11:47	18:17	. . .
			0.1	2.9	0.2	. . .
	S	24	0:00	6:32	12:31	19:05
			2.8	0.2	2.9	0.3
☽	M	25	0:44	7:13	13:18	19:57
			2.7	0.3	2.9	0.3
	Tu	26	1:33	8:00	14:11	20:54
			2.6	0.3	2.9	0.3
	W	27	2:27	8:55	15:07	21:57
			2.5	0.3	2.9	0.2
	Th	28	3:27	9:57	16:05	22:57
			2.5	0.3	3.0	0.1
N	F	29	4:30	11:00	17:06	23:55
			2.5	0.2	3.0	0.0
	S	30	5:34	12:02	18:05	. . .
			2.6	0.1	3.1	. . .
	S	31	0:52	6:35	13:02	19:03
			—0.1	2.7	0.0	3.2

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○	M	1	1:46	7:32	13:58	19:57
P			—0.2	2.9	—0.2	3.3
	Tu	2	2:37	8:26	14:52	20:50
			—0.3	3.0	—0.3	3.3
	W	3	3:27	9:18	15:46	21:42
			—0.4	3.1	—0.3	3.3
E	Th	4	4:17	10:10	16:39	22:33
			—0.4	3.2	—0.3	3.2
	F	5	5:05	11:01	17:33	23:25
			—0.3	3.2	—0.2	3.0
	S	6	5:57	11:53	18:30	. . .
			—0.2	3.1	—0.1	. . .
	S	7	0:16	6:48	12:46	19:28
			2.9	—0.1	3.0	0.0
☾	M	8	1:10	7:43	13:42	20:28
			2.7	0.0	2.9	0.1
	Tu	9	2:07	8:40	14:38	21:28
			2.5	0.1	2.8	0.2
	W	10	3:08	9:39	15:36	22:27
			2.4	0.2	2.7	0.2
S	Th	11	4:10	10:37	16:32	23:22
			2.3	0.2	2.7	0.2
	F	12	5:09	11:32	17:26	. . .
			2.3	0.2	2.7	. . .
	S	13	0:14	6:02	12:23	18:16
			0.2	2.4	0.2	2.8
	S	14	1:00	6:48	13:11	19:00
			0.1	2.4	0.1	2.8
A	M	15	1:43	7:29	13:54	19:42
			0.0	2.5	0.1	2.9
●	Tu	16	2:23	8:06	14:33	20:21
			0.0	2.7	0.0	2.9
	W	17	2:59	8:42	15:10	20:57
			—0.1	2.7	0.0	3.0
	Th	18	3:32	9:18	15:47	21:33
			—0.1	2.8	0.0	3.0
E	F	19	4:06	9:54	16:23	22:10
			0.0	2.9	0.1	2.9
	S	20	4:41	10:32	17:03	22:48
			0.0	3.0	0.1	2.9
	S	21	5:15	11:13	17:44	23:28
			0.1	3.0	0.1	2.8
	M	22	5:52	11:57	18:31	. . .
			0.2	3.0	0.2	. . .
	Tu	23	0:02	6:35	12:45	19:24
			2.7	0.2	3.0	0.2
☽	W	24	1:01	7:25	13:38	20:22
			2.6	0.3	3.0	0.3
	Th	25	1:57	8:22	14:36	21:26
			2.6	0.4	2.9	0.3
N	F	26	2:58	9:33	15:40	22:30
			2.5	0.3	2.9	0.2
	S	27	4:05	10:41	16:45	23:32
			2.5	0.2	2.9	0.1
	S	28	5:12	11:46	17:47	. . .
			2.6	0.1	3.0	. . .
	M	29	0:30	6:15	12:47	18:46
			0.0	2.8	—0.1	3.2

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:24	7:03	13:44	19:42
○			—0.2	2.9	—0.3	3.2
	W	2	2:15	8:07	14:32	20:33
			—0.3	3.1	—0.4	3.3
E	Th	3	3:05	8:57	15:28	21:24
			—0.4	3.2	—0.4	3.2
	F	4	3:52	9:47	16:20	22:13
			—0.4	3.3	—0.4	3.2
	S	5	4:41	10:37	17:12	23:02
			—0.3	3.3	—0.3	3.0
	S	6	5:30	11:27	18:05	23:52
			—0.2	3.2	—0.2	2.8
	M	7	6:22	12:18	19:01	. . .
			—0.1	3.0	0.0	. . .
☾	Tu	8	0:45	7:16	13:12	19:58
			2.6	0.1	2.9	0.1
S	W	9	1:40	8:13	14:08	20:57
			2.5	0.2	2.8	0.2
	Th	10	2:39	9:12	15:05	21:56
			2.4	0.3	2.6	0.3
	F	11	3:38	10:11	16:02	22:52
			2.3	0.3	2.6	0.3
	S	12	4:37	11:07	16:57	23:42
			2.3	0.3	2.6	0.2
	S	13	5:29	11:58	17:47	. . .
			2.4	0.2	2.6	. . .
A	M	14	0:28	6:15	12:44	18:32
			0.1	2.5	0.1	2.7
	Tu	15	1:10	6:55	13:27	19:13
			0.1	2.6	0.1	2.8
	W	16	1:49	7:33	14:05	19:52
			0.0	2.7	0.0	2.9
●	Th	17	2:24	8:09	14:42	20:28
E			0.0	2.9	0.0	2.9
	F	18	2:58	8:45	15:19	21:05
			0.0	3.0	—0.1	2.9
	S	19	3:32	9:22	15:57	21:42
			0.0	3.1	—0.1	2.9
	S	20	4:05	10:01	16:37	22:21
			0.1	3.1	0.0	2.9
	M	21	4:42	10:43	17:20	23:03
			0.1	3.1	0.0	2.8
	Tu	22	5:22	11:28	18:08	23:48
			0.2	3.1	0.1	2.7
	W	23	6:08	12:17	19:00	. . .
			0.2	3.0	0.2	. . .
N	Th	24	0:38	7:08	13:12	19:59
☽			2.6	0.3	2.9	0.2
	F	25	1:35	8:07	14:18	21:02
			2.6	0.4	2.8	0.3
	S	26	2:40	9:18	15:18	22:16
			2.5	0.3	2.8	0.2
	S	27	3:48	10:28	16:24	23:08
			2.6	0.2	2.8	0.1
	M	28	4:53	11:32	17:28	. . .
			2.7	0.0	2.9	. . .
P	Tu	29	0:07	5:55	12:32	18:27
			0.0	2.9	—0.2	3.0
E	W	30	1:00	6:52	13:27	19:22
			—0.2	3.1	—0.3	3.1
○	Th	31	1:51	7:43	14:19	20:13
			—0.3	3.2	—0.4	3.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.: ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	2:39 −0.3	8:33 3.3	15:09 −0.5	21:02 3.1
	S	2	3:27 −0.4	9:22 3.3	15:59 −0.4	21:51 3.0
	S	3	4:15 −0.3	10:11 3.3	16:49 −0.3	22:39 2.9
	M	4	5:04 −0.2	11:00 3.2	17:40 −0.2	23:28 2.8
	Tu	5	5:54 0.0	11:49 3.0	18:33 −0.1	. . . . . .
S	W	6	0:19 2.6	6:48 0.1	12:41 2.9	19:27 0.1
☾	Th	7	1:12 2.5	7:45 0.3	13:34 2.7	20:23 0.2
	F	8	2:08 2.4	8:43 0.3	14:29 2.6	21:19 0.3
	S	9	3:05 2.3	9:42 0.4	15:25 2.5	22:12 0.3
A	S	10	3:58 2.4	10:36 0.3	16:18 2.5	23:02 0.2
	M	11	4:48 2.4	11:26 0.3	17:08 2.5	23:48 0.2
	Tu	12	5:34 2.6	12:12 0.2	17:55 2.6	. . . . . .
E	W	13	0:30 0.1	6:15 2.7	12:54 0.1	18:37 2.7
	Th	14	1:08 0.1	6:55 2.9	13:33 0.0	19:17 2.8
●	F	15	1:45 0.1	7:33 3.0	14:12 −0.1	19:56 2.8
	S	16	2:22 0.0	8:12 3.1	14:52 −0.1	20:36 2.9
	S	17	2:58 0.1	8:52 3.2	15:32 −0.2	21:16 2.9
	M	18	3:35 0.1	9:34 3.2	16:16 −0.2	21:58 2.9
	Tu	19	4:16 0.1	10:18 3.2	17:02 −0.1	22:43 2.8
N	W	20	5:00 0.2	11:06 3.1	17:52 0.0	23:32 2.7
	Th	21	5:53 0.3	11:57 3.0	18:43 0.1	. . . . . .
☽	F	22	0:25 2.7	6:52 0.3	12:54 2.9	19:41 0.2
	S	23	1:24 2.6	7:59 0.4	13:56 2.8	20:42 0.2
	S	24	2:28 2.6	9:08 0.3	15:00 2.7	21:44 0.2
	M	25	3:33 2.7	10:15 0.2	16:05 2.7	22:45 0.1
P	Tu	26	4:36 2.8	11:18 0.0	17:07 2.7	23:42 0.0
E	W	27	5:34 2.9	12:15 −0.1	18:06 2.8	. . . . . .
	Th	28	0:35 −0.1	6:28 3.1	13:10 −0.3	19:00 2.9
○	F	29	1:25 −0.2	7:19 3.2	14:00 −0.4	19:51 2.9
	S	30	2:13 −0.2	8:08 3.3	14:50 −0.4	20:40 2.9

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	3:02 −0.2	8:57 3.3	15:38 −0.4	21:28 2.9
	M	2	3:50 −0.2	9:45 3.2	16:26 −0.3	22:16 2.8
S	Tu	3	4:38 −0.1	10:32 3.1	17:15 −0.2	23:03 2.7
	W	4	5:28 0.1	11:20 3.0	18:05 −0.1	23:53 2.6
	Th	5	6:21 0.2	12:08 2.8	18:55 0.1	. . . . . .
	F	6	0:43 2.5	7:16 0.3	12:58 2.7	19:47 0.2
☾	S	7	1:34 2.5	8:11 0.4	13:50 2.6	20:38 0.2
A	S	8	2:26 2.4	9:06 0.4	14:42 2.5	21:28 0.3
	M	9	3:16 2.5	9:58 0.4	15:33 2.4	22:15 0.3
	Tu	10	4:08 2.6	10:42 0.3	16:22 2.5	23:01 0.2
E	W	11	4:50 2.7	11:34 0.2	17:10 2.5	23:44 0.2
	Th	12	5:33 2.8	12:17 0.1	17:56 2.6	. . . . . .
	F	13	0:24 0.2	6:16 2.9	13:00 0.0	18:40 2.7
	S	14	1:05 0.1	6:59 3.1	13:42 −0.1	19:24 2.7
●	S	15	1:46 0.1	7:42 3.2	14:26 −0.2	20:08 2.8
	M	16	2:28 0.1	8:26 3.2	15:12 −0.2	20:53 2.8
N	Tu	17	3:12 0.1	9:12 3.2	15:58 −0.2	21:40 2.8
	W	18	3:58 0.1	10:00 3.2	16:46 −0.2	22:29 2.8
	Th	19	4:49 0.2	10:51 3.1	17:36 −0.1	23:20 2.7
	F	20	5:45 0.2	11:43 3.0	18:28 0.0	. . . . . .
	S	21	0:16 2.7	6:46 0.3	12:40 2.9	19:25 0.1
☽ P	S	22	1:14 2.7	7:51 0.3	13:40 2.7	20:23 0.1
	M	23	2:16 2.7	8:57 0.2	14:41 2.6	21:22 0.1
E	Tu	24	3:17 2.8	10:01 0.1	15:44 2.6	22:21 0.1
	W	25	4:16 2.9	11:02 0.0	16:46 2.6	23:17 0.0
	Th	26	5:12 3.0	12:00 −0.1	17:44 2.6	. . . . . .
	F	27	0:10 0.0	6:06 3.1	12:52 −0.2	18:40 2.7
	S	28	1:01 −0.1	6:57 3.2	13:42 −0.2	19:31 2.7
○	S	29	1:51 −0.1	7:45 3.2	14:30 −0.3	20:19 2.7
S	M	30	2:38 −0.1	8:33 3.2	15:18 −0.3	21:06 2.7
	Tu	31	3:26 −0.1	9:20 3.1	16:03 −0.2	21:52 2.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	4:15 0.0	10:05 3.0	16:49 −0.2	22:38 2.7
	Th	2	5:03 0.1	10:50 2.9	17:35 −0.1	23:24 2.6
	F	3	5:52 0.2	11:35 2.8	18:21 0.0	. . . . . .
	S	4	0:10 2.6	6:42 0.3	12:21 2.7	19:07 0.1
A	S	5	0:52 2.6	7:31 0.4	13:06 2.6	19:52 0.2
☾	M	6	1:42 2.6	8:21 0.4	13:54 2.5	20:38 0.3
E	Tu	7	2:29 2.6	9:11 0.4	14:42 2.5	21:23 0.3
	W	8	3:16 2.7	10:01 0.3	15:31 2.5	22:08 0.3
	Th	9	4:03 2.8	10:50 0.3	16:22 2.5	22:55 0.3
	F	10	4:51 2.9	11:38 0.1	17:13 2.5	23:42 0.2
	S	11	5:40 3.0	12:27 0.0	18:04 2.6	. . . . . .
	S	12	0:27 0.2	6:28 3.1	13:15 −0.1	18:54 2.7
●	M	13	1:16 0.1	7:16 3.2	14:03 −0.2	19:44 2.7
N	Tu	14	2:05 0.1	8:05 3.3	14:51 −0.3	20:34 2.8
	W	15	2:55 0.0	8:55 3.3	15:39 −0.3	21:25 2.8
	Th	16	3:46 0.0	9:45 3.2	16:29 −0.2	22:16 2.8
P	F	17	4:41 0.1	10:37 3.1	17:20 −0.2	23:11 2.8
	S	18	5:38 0.1	11:31 3.0	18:12 −0.1	. . . . . .
	S	19	0:04 2.8	6:37 0.1	12:27 2.9	19:07 0.0
☽ E	M	20	1:02 2.8	7:38 0.1	13:22 2.7	20:02 0.1
	Tu	21	1:57 2.8	8:42 0.1	14:22 2.6	21:00 0.1
	W	22	2:57 2.9	9:45 0.1	15:23 2.5	21:56 0.1
	Th	23	3:55 2.9	10:45 0.1	16:24 2.5	22:52 0.1
	F	24	4:51 2.9	11:42 0.0	17:25 2.5	23:48 0.0
	S	25	5:45 3.0	12:33 0.0	18:22 2.5	. . . . . .
	S	26	0:39 0.0	6:37 3.0	13:24 −0.1	19:13 2.5
S ○	M	27	1:30 0.0	7:25 3.1	14:11 −0.2	20:01 2.6
	Tu	28	2:18 0.0	8:12 3.1	14:57 −0.2	20:45 2.6
	W	29	3:04 0.0	8:56 3.0	15:40 −0.2	21:28 2.7
	Th	30	3:51 0.0	9:39 3.0	16:22 −0.1	22:10 2.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight; 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E., moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| JULY. | | |

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	6:35 0.2	12:14 2.6	18:35 0.4	. . .
☾	S	2	0:43 2.9	7:30 0.2	13:08 2.6	19:36 0.4
	M	3	1:42 2.8	8:30 0.3	14:09 2.5	20:46 0.4
	Tu	4	2:47 2.8	9:33 0.3	15:15 2.6	21:57 0.3
	W	5	3:51 2.8	10:36 0.2	16:21 2.7	23:01 0.1
	Th	6	4:55 2.9	11:33 0.1	17:22 2.9	. . .
	F	7	0:01 —0.1	5:54 2.9	12:28 —0.1	18:19 3.0
P E	S	8	0:57 —0.3	6:50 3.0	13:19 —0.2	19:12 3.2
●	S	9	1:50 —0.4	7:42 3.1	14:09 —0.3	20:03 3.3
	M	10	2:42 —0.5	8:33 3.1	14:57 —0.3	20:54 3.4
	Tu	11	3:31 —0.5	9:23 3.0	15:47 —0.3	21:43 3.3
	W	12	4:22 —0.4	10:13 3.0	16:37 —0.2	22:34 3.2
	Th	13	5:15 —0.3	11:04 2.8	17:30 —0.1	23:26 3.1
S	F	14	6:09 —0.2	11:57 2.7	18:26 0.1	. . .
	S	15	0:19 2.9	7:05 0.0	12:53 2.6	19:25 0.2
☽	S	16	1:15 2.8	8:03 0.1	13:51 2.5	20:25 0.3
	M	17	2:12 2.6	9:00 0.2	14:50 2.4	21:24 0.3
	Tu	18	3:10 2.5	9:51 0.2	15:46 2.4	22:21 0.3
	W	19	4:06 2.5	10:46 0.2	16:37 2.5	23:12 0.2
A	Th	20	4:57 2.5	11:32 0.2	17:22 2.6	23:59 0.2
E	F	21	5:43 2.5	12:16 0.1	18:02 2.7	. . .
	S	22	0:42 0.1	6:25 2.6	12:55 0.1	18:42 2.8
	S	23	1:22 0.0	7:03 2.7	13:32 0.1	19:18 2.9
○	M	24	2:00 —0.1	7:41 2.7	14:06 0.1	19:55 3.0
	Tu	25	2:36 —0.1	8:19 2.8	14:41 0.1	20:33 3.1
	W	26	3:16 —0.1	8:57 2.8	15:16 0.1	21:13 3.2
	Th	27	3:57 —0.1	9:37 2.8	15:53 0.2	21:55 3.1
	F	28	4:40 —0.1	10:20 2.8	16:36 0.2	22:40 3.1
N	S	29	5:26 0.0	11:06 2.7	17:23 0.3	23:29 3.0
	S	30	6:16 0.1	11:57 2.7	18:19 0.4	. . .
☾	M	31	0:23 2.9	7:10 0.2	12:53 2.6	19:24 0.4

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	1:22 2.8	8:08 0.3	13:54 2.6	20:33 0.3
	W	2	2:23 2.7	9:08 0.3	14:58 2.7	21:41 0.2
	Th	3	3:28 2.7	10:09 0.2	16:01 2.8	22:44 0.1
E	F	4	4:32 2.7	11:07 0.1	17:01 2.9	23:44 —0.1
P	S	5	5:32 2.8	12:02 —0.1	17:57 3.1	. . .
	S	6	0:39 —0.2	6:28 2.8	12:54 —0.2	18:50 3.2
●	M	7	1:32 —0.3	7:22 2.9	13:45 —0.2	19:42 3.3
	Tu	8	2:23 —0.4	8:14 2.9	14:34 —0.2	20:31 3.3
	W	9	3:13 —0.4	9:04 2.9	15:24 —0.2	21:20 3.3
S	Th	10	4:03 —0.4	9:53 2.8	16:15 —0.1	22:09 3.2
	F	11	4:53 —0.3	10:43 2.8	17:07 0.0	22:59 3.1
	S	12	5:44 —0.2	11:33 2.7	18:01 0.1	23:50 2.9
	S	13	6:36 —0.1	12:27 2.6	18:57 0.2	. . .
☽	M	14	0:43 2.7	7:28 0.1	13:19 2.5	19:54 0.3
	Tu	15	1:35 2.6	8:21 0.1	14:12 2.5	20:51 0.3
	W	16	2:28 2.5	9:12 0.2	15:03 2.5	21:44 0.3
A	Th	17	3:21 2.4	10:02 0.2	15:52 2.6	22:35 0.3
E	F	18	4:11 2.4	10:48 0.2	16:37 2.7	23:23 0.2
	S	19	4:59 2.4	11:31 0.2	17:21 2.8	. . .
	S	20	0:07 0.1	5:42 2.5	12:12 0.2	18:02 2.9
	M	21	0:48 0.1	6:27 2.6	12:51 0.2	18:43 3.0
○	Tu	22	1:29 0.0	7:08 2.6	13:30 0.2	19:25 3.1
	W	23	2:11 —0.1	7:50 2.7	14:10 0.2	20:07 3.2
	Th	24	2:52 —0.2	8:33 2.7	14:51 0.2	20:51 3.2
N	F	25	3:37 —0.2	9:17 2.8	15:34 0.2	21:36 3.2
	S	26	4:22 —0.2	10:03 2.8	16:22 0.2	22:23 3.1
	S	27	5:09 —0.1	10:52 2.8	17:14 0.2	23:13 3.0
	M	28	5:59 0.0	11:44 2.8	18:12 0.3	. . .
	Tu	29	0:07 2.9	6:52 0.1	12:41 2.7	19:14 0.3
☾	W	30	1:03 2.8	7:47 0.2	13:39 2.7	20:18 0.3

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	2:03 2.7	8:44 0.2	14:40 2.8	21:24 0.2
P	F	2	3:05 2.6	9:43 0.2	15:41 2.9	22:28 0.1
	S	3	4:08 2.6	10:42 0.1	16:39 3.0	23:28 0.0
	S	4	5:10 2.6	11:38 0.0	17:36 3.1	. . .
	M	5	0:24 —0.1	6:09 2.6	12:32 —0.1	18:30 3.2
●	Tu	6	1:16 —0.2	7:04 2.7	13:24 —0.1	19:22 3.2
	W	7	2:07 —0.3	7:56 2.7	14:15 —0.2	20:12 3.2
S	Th	8	2:56 —0.3	8:45 2.8	15:05 —0.1	21:00 3.2
	F	9	3:44 —0.3	9:33 2.8	15:54 —0.1	21:47 3.1
	S	10	4:30 —0.3	10:21 2.8	16:44 0.0	22:34 3.0
	S	11	5:17 —0.2	11:08 2.7	17:34 0.1	23:21 2.9
	M	12	6:04 —0.1	11:55 2.7	18:25 0.2	. . .
	Tu	13	0:07 2.8	6:51 0.0	12:42 2.6	19:17 0.3
☽ A	W	14	0:54 2.6	7:37 0.1	13:28 2.6	20:08 0.4
E	Th	15	1:40 2.5	8:22 0.2	14:15 2.6	20:59 0.4
	F	16	2:28 2.4	9:09 0.3	15:02 2.6	21:49 0.4
	S	17	3:17 2.4	9:55 0.3	15:49 2.7	22:38 0.3
	S	18	4:07 2.4	10:41 0.3	16:36 2.8	23:26 0.2
	M	19	4:57 2.4	11:27 0.3	17:23 2.9	. . .
	Tu	20	0:14 0.1	5:47 2.5	12:12 0.3	18:10 3.0
	W	21	1:00 0.0	6:37 2.5	13:00 0.2	18:58 3.1
○ N	Th	22	1:46 —0.1	7:25 2.6	13:46 0.1	19:45 3.2
	F	23	2:32 —0.2	8:12 2.7	14:33 0.1	20:32 3.2
	S	24	3:12 —0.2	9:01 2.8	15:22 0.0	21:22 3.2
	S	25	4:04 —0.2	9:49 2.9	16:12 0.0	22:10 3.2
	M	26	4:52 —0.2	10:40 2.9	17:05 0.1	22:01 3.1
P	Tu	27	5:41 —0.1	11:32 2.9	18:02 0.1	23:52 3.0
	W	28	6:32 0.0	12:26 2.9	19:00 0.2	. . .
E ☾	Th	29	0:46 2.8	7:25 0.1	13:22 2.9	20:01 0.2
	F	30	1:43 2.6	8:21 0.1	14:20 2.9	21:05 0.2
	S	31	2:42 2.5	9:18 0.1	15:19 2.9	22:09 0.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings of the Coast and Geodetic Survey Charts of this region, and which is 1.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	4:32 1.1	10:55 —0.2	17:27 1.4	23:47 0.1
N	S	2	5:22 1.1	11:44 —0.2	18:15 1.5	. . . . . .
○	S	3	0:35 0.0	6:16 1.1	12:34 —0.2	19:03 1.5
P	M	4	1:24 0.0	7:09 1.2	13:25 —0.2	19:53 1.5
	Tu	5	2:12 0.0	8:04 1.2	14:17 —0.2	20:42 1.4
	W	6	3:00 —0.1	9:00 1.2	15:10 —0.1	21:32 1.4
	Th	7	3:50 —0.1	9:57 1.2	16:06 0.0	22:22 1.3
E	F	8	4:40 —0.1	10:54 1.3	17:05 0.0	23:13 1.2
☾	S	9	5:32 —0.1	11:52 1.3	18:06 0.0	. . . . . .
	S	10	0:06 1.2	6:24 —0.1	12:50 1.3	19:10 0.1
	M	11	1:00 1.1	7:18 —0.1	13:47 1.3	20:16 0.1
	Tu	12	1:55 1.1	8:12 —0.1	14:45 1.3	21:20 0.1
	W	13	2:50 1.0	9:07 —0.1	15:38 1.3	22:20 0.2
	Th	14	3:47 1.0	9:59 —0.1	16:32 1.4	23:17 0.2
S	F	15	4:40 1.0	10:50 —0.1	17:22 1.4	. . . . . .
	S	16	0:07 0.1	5:30 1.0	11:39 —0.1	18:08 1.4
●	S	17	0:53 0.1	6:18 1.0	12:28 —0.1	18:55 1.4
	M	18	1:34 0.1	7:05 1.0	13:14 —0.1	19:38 1.4
A	Tu	19	2:12 0.1	7:50 1.0	13:58 0.0	20:20 1.3
	W	20	2:48 0.0	8:35 1.1	14:43 0.0	21:02 1.3
	Th	21	3:24 0.0	9:22 1.1	15:25 0.0	21:42 1.4
E	F	22	4:02 0.0	10:07 1.1	16:12 0.1	22:24 1.2
	S	23	4:42 0.0	10:56 1.2	17:00 0.1	23:04 1.2
	S	24	5:25 0.0	11:45 1.2	17:47 0.1	23:48 1.1
☽	M	25	6:11 —0.1	12:36 1.2	18:40 0.2	. . . . . .
	Tu	26	0:34 1.1	6:59 —0.1	13:28 1.2	19:36 0.2
	W	27	1:24 1.1	7:52 —0.1	14:22 1.3	20:33 0.2
	Th	28	2:17 1.1	8:44 —0.1	15:17 1.3	21:32 0.1
N	F	29	3:12 1.1	9:40 —0.2	16:11 1.4	22:27 0.1
	S	30	4:10 1.1	10:34 —0.2	17:02 1.4	23:22 0.1
	S	31	5:07 1.2	11:27 —0.2	17:55 1.4	. . . . . .

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○ P	M	1	0:13 0.0	6:02 1.2	12:21 —0.2	18:45 1.4
	Tu	2	1:02 0.0	6:57 1.3	13:14 —0.2	19:35 1.4
	W	3	1:50 —0.1	7:48 1.3	14:05 —0.2	20:22 1.4
E	Th	4	2:38 —0.1	8:44 1.3	14:57 —0.1	21:10 1.3
	F	5	3:21 —0.1	9:36 1.3	15:52 —0.1	22:00 1.3
	S	6	4:14 —0.1	10:32 1.3	16:47 0.0	22:48 1.2
	S	7	5:02 —0.1	11:25 1.3	17:45 0.0	23:40 1.1
☾	M	8	5:54 —0.1	12:20 1.3	18:46 0.1	. . . . . .
	Tu	9	0:32 1.1	6:48 0.0	13:17 1.3	19:50 0.2
	W	10	1:28 1.0	7:42 0.0	14:16 1.3	20:53 0.2
S	Th	11	2:26 1.0	8:40 0.0	15:12 1.3	21:53 0.2
	F	12	3:22 1.0	9:35 0.0	16:05 1.3	22:48 0.2
	S	13	4:20 1.0	10:30 0.0	16:57 1.3	23:37 0.1
	S	14	5:10 1.0	11:20 0.0	17:45 1.3	. . . . . .
A	M	15	0:28 0.1	5:58 1.0	12:08 0.0	18:30 1.3
●	Tu	16	0:58 0.1	6:43 1.1	12:53 0.0	19:10 1.3
	W	17	1:34 0.0	7:27 1.1	13:37 0.0	19:52 1.3
	Th	18	2:08 0.0	8:10 1.2	14:19 0.0	20:30 1.3
E	F	19	2:45 0.0	8:51 1.2	15:00 0.0	21:07 1.2
	S	20	3:20 0.0	9:36 1.2	15:43 0.0	21:47 1.2
	S	21	4:00 —0.1	10:22 1.3	16:28 0.1	22:27 1.2
	M	22	4:45 —0.1	11:10 1.3	17:15 0.1	23:10 1.1
	Tu	23	5:32 —0.1	12:00 1.3	18:05 0.1	. . . . . .
☽	W	24	0:02 1.1	6:23 —0.1	12:55 1.3	19:02 0.1
	Th	25	0:55 1.1	7:20 —0.1	13:50 1.3	20:02 0.1
N	F	26	1:54 1.1	8:18 —0.1	14:48 1.3	21:02 0.1
	S	27	2:55 1.1	9:20 —0.1	15:47 1.3	22:02 0.1
	S	28	3:56 1.2	10:18 —0.1	16:41 1.3	22:58 0.1
	M	29	4:55 1.2	11:15 —0.2	17:34 1.3	23:50 0.0

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MARCH.			
P ○	Tu	1	5:50 1.3	12:09 —0.2	18:24 1.4	. . . . . .
	W	2	0:39 —0.1	6:42 1.3	13:02 —0.2	19:03 1.3
E	Th	3	1:26 —0.1	7:35 1.4	13:54 —0.2	20:00 1.3
	F	4	2:12 —0.1	8:25 1.4	14:45 —0.1	20:47 1.3
	S	5	2:57 —0.1	9:16 1.4	15:35 —0.1	21:33 1.2
	S	6	3:44 —0.1	10:05 1.4	16:28 0.0	22:22 1.1
	M	7	4:32 —0.1	10:57 1.4	17:22 0.0	23:12 1.1
☾	Tu	8	5:23 0.0	11:50 1.3	18:21 0.1	. . . . . .
S	W	9	0:05 1.0	6:17 0.0	12:47 1.3	19:22 0.2
	Th	10	1:02 1.0	7:15 0.0	13:44 1.2	20:20 0.2
	F	11	2:02 1.0	8:14 0.1	14:41 1.2	21:20 0.2
	S	12	3:02 1.0	9:12 0.0	15:37 1.2	22:18 0.1
	S	13	3:57 1.0	10:08 0.0	16:29 1.2	22:57 0.1
A	M	14	4:48 1.1	11:00 0.0	17:15 1.2	23:38 0.0
	Tu	15	5:33 1.1	11:49 0.0	17:57 1.2	. . . . . .
	W	16	0:14 0.0	6:17 1.2	12:33 0.0	18:37 1.2
● E	Th	17	0:52 0.0	7:00 1.2	13:15 0.0	19:15 1.2
	F	18	1:26 —0.1	7:40 1.3	13:55 0.0	19:52 1.2
	S	19	2:02 —0.1	8:22 1.3	14:35 0.0	20:30 1.2
	S	20	2:44 —0.1	9:04 1.4	15:18 0.0	21:10 1.2
	M	21	3:22 —0.1	9:50 1.4	16:00 0.0	21:53 1.1
	Tu	22	4:10 —0.1	10:37 1.3	16:46 0.1	22:40 1.1
	W	23	4:58 —0.1	11:28 1.3	17:38 0.1	23:35 1.1
N ☽	Th	24	5:54 —0.1	12:24 1.3	18:35 0.1	. . . . . .
	F	25	0:35 1.1	6:52 0.0	13:22 1.3	19:36 0.1
	S	26	1:37 1.1	7:56 0.0	14:22 1.2	20:37 0.1
	S	27	2:42 1.1	9:00 0.0	15:21 1.2	21:35 0.0
	M	28	3:42 1.2	10:02 —0.1	16:17 1.3	22:32 0.0
P	Tu	29	4:41 1.3	11:01 —0.1	17:10 1.3	23:24 —0.1
E	W	30	5:35 1.4	11:58 —0.1	18:01 1.3	. . . . . .
○	Th	31	0:10 —0.1	6:25 1.4	12:50 —0.1	18:48 1.3

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A. P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:57	7:14	13:40	19:36
			—0.2	1.5	—0.1	1.2
	S	2	1:43	8:02	14:30	20:22
			—0.2	1.5	—0.1	1.2
	S	3	2:28	8:50	15:20	21:09
			—0.1	1.5	0.0	1.1
	M	4	3:14	9:40	16:09	21:57
			—0.1	1.4	0.0	1.1
	Tu	5	4:02	10:30	17:00	22:47
			0.0	1.4	0.1	1.0
S	W	6	4:53	11:22	17:55	23:44
			0.0	1.3	0.1	1.0
☾	Th	7	5:48	12:15	18:52	. . .
			0.1	1.2	0.1	. . .
	F	8	0:40	6:46	13:10	19:47
			1.0	0.1	1.2	0.2
	S	9	1:40	7:51	14:08	20:38
			1.0	0.1	1.2	0.1
A	S	10	2:39	8:50	15:00	21:27
			1.0	0.1	1.1	0.1
	M	11	3:34	9:47	15:52	22:11
			1.1	0.1	1.1	0.1
	Tu	12	4:20	10:39	16:38	22:57
			1.1	0.1	1.1	0.0
E	W	13	5:06	11:25	17:18	23:32
			1.2	0.0	1.1	0.0
	Th	14	5:50	12:10	17:58	. . .
			1.3	0.0	1.1	. . .
●	F	15	0:08	6:30	12:50	18:36
			—0.1	1.4	0.0	1.2
	S	16	0:47	7:12	13:20	19:14
			—0.1	1.4	0.0	1.2
	S	17	1:28	7:52	14:10	19:55
			—0.1	1.4	0.0	1.1
	M	18	2:08	8:36	14:52	20:37
			—0.2	1.4	0.0	1.1
	Tu	19	2:52	9:22	15:37	21:25
			—0.1	1.4	0.0	1.1
N	W	20	3:40	10:10	16:25	22:18
			—0.1	1.4	0.0	1.1
	Th	21	4:32	11:01	17:17	23:15
			—0.1	1.4	0.0	1.1
☽	F	22	5:28	11:57	18:15	. . .
			0.0	1.3	0.0	. . .
	S	23	0:17	6:32	12:54	19:14
			1.1	0.0	1.2	0.0
	S	24	1:22	7:37	13:54	20:12
			1.1	0.0	1.2	0.0
	M	25	2:26	8:44	14:53	21:09
			1.2	0.0	1.2	0.0
P	Tu	26	3:27	9:47	15:50	22:02
			1.3	0.0	1.2	—0.1
E	W	27	4:22	10:43	16:42	22:54
			1.4	—0.1	1.2	—0.1
	Th	28	5:15	11:44	17:35	23:43
			1.4	—0.1	1.2	—0.2
○	F	29	6:05	12:37	18:23	. . .
			1.5	—0.1	1.2	. . .
	S	30	0:30	6:52	13:27	19:09
			—0.2	1.5	—0.1	1.1

MAY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	1:16	7:40	14:15	19:56
			—0.2	1.5	0.0	1.1
	M	2	2:02	8:28	15:03	20:42
			—0.1	1.5	0.0	1.0
S	Tu	3	2:48	9:15	15:50	21:32
			—0.1	1.4	0.0	1.0
	W	4	3:37	10:04	16:40	22:23
			0.0	1.4	0.1	1.0
	Th	5	4:27	10:54	17:30	23:20
			0.0	1.3	0.1	1.0
	F	6	5:23	11:46	18:19	. . .
			0.1	1.2	0.1	. . .
☾	S	7	0:17	6:20	12:38	19:10
			1.0	0.2	1.2	0.1
A	S	8	1:15	7:22	13:30	19:57
			1.0	0.2	1.1	0.1
	M	9	2:10	8:20	14:20	20:44
			1.0	0.2	1.1	0.1
	Tu	10	3:02	9:18	15:07	21:27
			1.1	0.2	1.1	0.0
E	W	11	3:50	10:10	15:52	22:10
			1.2	0.1	1.1	0.0
	Th	12	4:34	10:55	16:37	22:50
			1.3	0.1	1.1	—0.1
	F	13	5:18	11:40	17:16	23:30
			1.4	0.1	1.1	—0.2
	S	14	6:00	12:22	17:57	. . .
			1.4	0.1	1.1	. . .
●	S	15	0:14	6:43	13:03	18:40
			—0.2	1.5	0.0	1.1
	M	16	0:55	7:27	13:44	19:24
			—0.2	1.5	0.0	1.1
N	Tu	17	1:40	8:12	14:30	20:12
			—0.2	1.5	0.0	1.1
	W	18	2:27	9:00	15:15	21:02
			—0.2	1.5	0.0	1.1
	Th	19	3:17	9:47	16:05	22:00
			—0.1	1.4	0.0	1.1
	F	20	4:10	10:38	16:58	23:00
			—0.1	1.4	0.0	1.1
	S	21	5:08	11:34	17:54	. . .
			0.0	1.3	0.0	. . .
☽ P	S	22	0:02	6:12	12:29	18:50
			1.2	0.0	1.2	0.0
	M	23	1:06	7:18	13:27	19:46
			1.2	0.0	1.2	0.0
E	Tu	24	2:07	8:26	14:25	20:42
			1.2	0.0	1.2	—0.1
	W	25	3:06	9:30	15:20	21:36
			1.3	0.0	1.1	—0.1
	Th	26	4:00	10:32	16:14	22:27
			1.4	0.0	1.1	—0.2
	F	27	4:53	11:28	17:06	23:16
			1.5	0.0	1.1	—0.2
	S	28	5:42	12:22	17:57	. . .
			1.5	0.0	1.1	. . .
○	S	29	0:04	6:30	13:12	18:46
			—0.2	1.5	0.0	1.1
S	M	30	0:51	7:18	14:00	19:32
			—0.2	1.5	0.0	1.0
	Tu	31	1:37	8:06	14:42	20:22
			—0.3	1.5	0.0	1.0

JUNE.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	2:26	8:52	15:30	21:11
			—0.1	1.4	0.1	1.1
	Th	2	3:14	9:40	16:17	22:02
			0.0	1.4	0.1	1.0
	F	3	4:04	10:28	17:00	22:55
			0.1	1.3	0.1	1.0
	S	4	4:55	11:15	17:46	23:48
			0.1	1.2	0.1	1.0
A	S	5	5:52	12:03	18:30	. . .
			0.2	1.2	0.0	. . .
☾	M	6	0:42	6:50	12:48	19:15
			1.0	0.2	1.1	0.0
E	Tu	7	1:35	7:45	13:36	20:00
			1.1	0.2	1.1	0.0
	W	8	2:25	8:40	14:22	20:45
			1.1	0.2	1.1	—0.1
	Th	9	3:15	9:30	15:07	21:28
			1.2	0.2	1.1	—0.1
	F	10	4:00	10:18	15:53	22:14
			1.3	0.2	1.1	—0.1
	S	11	4:47	11:06	16:37	23:00
			1.4	0.1	1.1	—0.2
	S	12	5:32	11:52	17:25	23:45
			1.4	0.1	1.1	—0.2
●	M	13	6:17	12:37	18:12	. . .
			1.5	0.1	1.1	. . .
N	Tu	14	0:32	7:03	13:22	19:02
			—0.2	1.5	0.0	1.1
	W	15	1:20	7:50	14:10	19:53
			—0.2	1.5	0.0	1.1
	Th	16	2:10	8:38	14:57	20:47
			—0.2	1.5	0.0	1.2
P	F	17	3:00	9:27	15:47	21:44
			—0.1	1.4	0.0	1.2
	S	18	3:55	10:18	16:37	22:43
			—0.1	1.4	—0.1	1.2
	S	19	4:52	11:10	17:30	23:45
			0.0	1.3	—0.1	1.2
☽ E	M	20	5:55	12:04	18:24	. . .
			0.0	1.2	—0.1	. . .
	Tu	21	0:44	6:58	13:00	19:18
			1.3	0.0	1.2	—0.1
	W	22	1:44	8:04	13:55	20:12
			1.3	0.1	1.1	—0.1
	Th	23	2:40	9:09	14:52	21:07
			1.3	0.1	1.1	—0.1
	F	24	3:38	10:12	15:47	22:00
			1.4	0.1	1.1	—0.2
	S	25	4:30	11:10	16:40	22:52
			1.4	0.1	1.1	—0.2
	S	26	5:22	12:02	17:34	23:41
			1.4	0.1	1.0	—0.2
S ○	M	27	6:12	12:54	18:24	. . .
			1.5	0.1	1.0	. . .
	Tu	28	0:30	6:58	13:41	19:10
			—0.1	1.5	0.1	1.1
	W	29	1:17	7:44	14:25	20:02
			—0.1	1.4	0.1	1.0
	Th	30	2:05	8:30	15:06	20:50
			—0.1	1.4	0.0	1.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon: ☽, 1st quar.: ○, full moon: ☾, 3d quar.: E, moon on the equator: N, S, moon farthest north or south of the equator: A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	2:53	9:15	15:45	21:37	
			0.0	1.3	0.0	1.0	
	S	2	3:40	10:00	16:25	22:25	
			0.1	1.3	0.0	1.1	
A	S	3	4:28	10:42	17:06	23:16	
			0.1	1.2	0.0	1.1	
E	M	4	5:18	11:25	17:48	. . .	
			0.2	1.2	0.0	. . .	
☾	Tu	5	0:05	6:10	12:08	18:32	
			1.1	0.2	1.1	0.0	
	W	6	0:56	7:02	12:51	19:17	
			1.1	0.2	1.1	0.0	
	Th	7	1:46	7:55	13:37	20:05	
			1.2	0.2	1.0	0.1	
	F	8	2:38	8:50	14:25	20:52	
			1.2	0.2	1.0	—0.1	
	S	9	3:37	9:42	15:15	21:44	
			1.3	0.2	1.0	—0.2	
	S	10	4:17	10:35	16:07	22:35	
			1.4	0.2	1.1	—0.2	
N	M	11	5:06	11:24	16:57	23:22	
			1.4	0.1	1.1	—0.2	
	Tu	12	5:55	12:14	17:52	. . .	
			1.4	0.1	1.1	. . .	
●	W	13	0:13	6:42	13:00	18:44	
			—0.2	1.5	0.0	1.2	
P	Th	14	1:03	7:30	13:47	19:38	
			—0.2	1.5	0.0	1.2	
	F	15	1:56	8:18	14:36	20:32	
			—0.2	1.4	—0.1	1.2	
	S	16	2:47	9:07	15:24	21:27	
			—0.2	1.4	—0.1	1.3	
E	S	17	3:40	9:57	16:14	22:25	
			—0.1	1.3	—0.1	1.3	
	M	18	4:35	10:47	17:02	23:22	
			0.0	1.3	—0.1	1.3	
☽	Tu	19	5:35	11:39	17:55	. . .	
			0.0	1.2	—0.1	. . .	
	W	20	0:18	6:35	12:32	18:48	
			1.3	0.0	1.1	—0.1	
	Th	21	1:17	7:40	13:27	19:43	
			1.3	0.1	1.1	—0.1	
	F	22	2:13	8:44	14:25	20:42	
			1.3	0.1	1.0	—0.1	
	S	23	3:12	9:48	15:22	21:35	
			1.3	0.1	1.0	—0.1	
S	S	24	4:07	10:48	16:19	22:30	
			1.3	0.1	1.0	—0.1	
	M	25	5:00	11:42	17:13	23:22	
			1.4	0.1	1.0	—0.1	
	Tu	26	5:50	12:31	18:06	. . .	
			1.4	0.1	1.0	. . .	
○	W	27	0:12	6:37	13:13	18:53	
			—0.1	1.4	0.1	1.1	
	Th	28	1:00	7:22	13:55	19:38	
			—0.1	1.4	0.0	1.1	
	F	29	1:47	8:05	14:30	20:24	
			0.0	1.3	0.0	1.1	
A	S	30	2:32	8:48	15:08	21:10	
			0.0	1.3	0.0	1.1	
	S	31	3:15	9:26	15:45	21:54	
			0.0	1.2	0.0	1.2	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	4:00	10:07	16:24	22:40	
			0.1	1.2	0.0	1.2	
	Tu	2	4:46	10:46	17:04	23:27	
			0.1	1.1	0.0	1.2	
	W	3	5:33	11:26	17:50	. . .	
			0.1	1.1	—0.1	. . .	
☾	Th	4	0:17	6:20	12:10	18:37	
			1.2	0.2	1.1	—0.1	
	F	5	1:09	7:14	12:58	19:28	
			1.2	0.2	1.0	—0.1	
	S	6	2:00	8:12	13:50	20:22	
			1.4	0.2	1.0	—0.1	
	S	7	2:54	9:07	14:47	21:13	
			1.3	0.2	1.0	—0.1	
N	M	8	3:49	10:13	15:43	22:10	
			1.3	0.1	1.1	—0.2	
	Tu	9	4:40	10:58	16:42	23:05	
			1.4	0.1	1.1	—0.2	
	W	10	5:33	11:50	17:38	23:58	
			1.4	0.0	1.2	—0.2	
●	Th	11	6:24	12:37	18:31	. . .	
			1.4	0.0	1.3	. . .	
P	F	12	0:50	7:12	13:26	19:25	
			—0.2	1.4	—0.1	1.3	
	S	13	1:40	8:00	14:12	20:18	
			—0.2	1.4	—0.1	1.3	
E	S	14	2:32	8:47	15:00	21:10	
			—0.2	1.4	—0.1	1.4	
	M	15	3:25	9:34	15:47	22:02	
			—0.1	1.3	—0.1	1.4	
	Tu	16	4:18	10:22	16:34	22:56	
			—0.1	1.2	—0.1	1.3	
☽	W	17	5:12	11:12	17:25	23:50	
			0.0	1.2	—0.1	1.3	
	Th	18	6:12	12:05	18:20	. . .	
			0.1	1.1	0.0	. . .	
	F	19	0:47	7:15	13:00	19:17	
			1.3	0.1	1.1	0.0	
S	S	20	1:45	8:20	14:00	20:15	
			1.3	0.1	1.0	0.0	
	S	21	2:44	9:23	15:00	21:14	
			1.3	0.1	1.0	0.0	
	M	22	3:42	10:20	16:00	22:11	
			1.3	0.1	1.0	0.0	
	Tu	23	4:37	11:12	16:55	23:05	
			1.3	0.1	1.0	0.0	
	W	24	5:27	11:58	17:44	23:56	
			1.3	0.1	1.1	0.0	
○	Th	25	6:14	12:38	18:30	. . .	
			1.3	0.0	1.1	. . .	
A	F	26	0:43	6:55	13:16	19:15	
			0.0	1.3	0.0	1.3	
	S	27	1:28	7:36	13:51	19:57	
			0.0	1.2	0.0	1.2	
E	S	28	2:10	8:13	14:27	20:37	
			0.0	1.2	0.0	1.2	
	M	29	2:53	8:50	15:03	21:20	
			0.0	1.2	—0.1	1.3	
	Tu	30	3:30	9:27	15:42	22:06	
			0.0	1.2	—0.1	1.3	
	W	31	4:14	10:07	16:25	22:51	
			0.1	1.1	—0.1	1.3	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	4:57	10:47	17:10	23:40	
			0.1	1.1	—0.1	1.3	
☾	F	2	5:45	11:35	18:00	. . .	
			0.1	1.1	—0.1	. . .	
	S	3	0:32	6:38	12:28	18:54	
			1.3	0.2	1.0	—0.1	
N	S	4	1:26	7:37	13:27	19:52	
			1.3	0.2	1.1	—0.1	
	M	5	2:22	8:36	14:28	20:52	
			1.3	0.1	1.1	—0.1	
	Tu	6	3:19	9:37	15:30	21:52	
			1.3	0.1	1.1	—0.1	
	W	7	4:12	10:30	16:28	22:48	
			1.3	0.0	1.2	—0.1	
	Th	8	5:10	11:22	17:25	23:44	
			1.3	0.0	1.3	—0.2	
P ●	F	9	6:00	12:12	18:18	. . .	
			1.3	—0.1	1.4	. . .	
E	S	10	0:36	6:48	13:00	19:07	
			—0.2	1.3	—0.1	1.4	
	S	11	1:28	7:35	13:45	19:58	
			—0.2	1.3	—0.1	1.4	
	M	12	2:19	8:22	14:30	20:47	
			—0.2	1.3	—0.1	1.4	
	Tu	13	3:09	9:09	15:17	21:39	
			—0.1	1.2	—0.1	1.4	
	W	14	4:00	9:57	16:06	22:30	
			—0.1	1.2	—0.1	1.4	
	Th	15	4:54	10:50	16:56	23:24	
			0.0	1.1	—0.1	1.3	
☽	F	16	5:50	11:42	17:52	. . .	
			0.0	1.0	0.0	. . .	
S	S	17	0:20	6:50	12:40	18:50	
			1.3	0.1	1.0	0.0	
	S	18	1:17	7:52	13:40	19:52	
			1.2	0.1	1.0	0.1	
	M	19	2:17	8:52	14:44	20:55	
			1.2	0.1	1.0	0.1	
	Tu	20	3:16	9:45	15:42	21:54	
			1.2	0.1	1.0	0.1	
	W	21	4:07	10:33	16:33	22:48	
			1.2	0.1	1.1	0.0	
	Th	22	4:57	11:17	17:21	23:40	
			1.2	0.0	1.2	0.0	
A	F	23	5:40	11:58	18:05	. . .	
			1.2	0.0	1.2	. . .	
○ E	S	24	0:24	6:21	12:35	18:46	
			0.0	1.2	0.0	1.3	
	S	25	1:07	7:00	13:10	19:27	
			0.0	1.2	—0.1	1.3	
	M	26	1:46	7:35	13:47	20:07	
			0.0	1.2	—0.1	1.4	
	Tu	27	2:24	8:10	14:24	20:47	
			0.0	1.1	—0.1	1.4	
	W	28	3:04	8:50	15:04	21:32	
			0.0	1.1	—0.1	1.4	
	Th	29	3:44	9:32	15:47	22:18	
			0.1	1.1	—0.1	1.4	
	F	30	4:29	10:18	16:35	23:07	
			0.1	1.1	—0.1	1.3	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (–) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
N	S	1	5:18	11:08	17:28	. . .	
			0.1	1.1	—0.1	. . .	
☾	S	2	0:00	6:12	12:07	18:25	
			1.3	0.1	1.3	0.0	
	M	3	0:55	7:10	13:10	19:27	
			1.3	0.1	1.1	0.0	
	Tu	4	1:54	8:08	14:14	20:30	
			1.2	0.1	1.1	0.0	
	W	5	2:52	9:08	15:15	21:33	
			1.2	0.0	1.2	—0.1	
	Th	6	3:50	10:02	16:14	22:33	
			1.2	0.0	1.3	—0.1	
	F	7	4:42	10:55	17:08	23:30	
			1.3	—0.1	1.4	—0.1	
P E	S	8	5:35	11:43	18:00	. . .	
			1.3	—0.1	1.4	. . .	
●	S	9	0:23	6:22	12:30	18:50	
			—0.1	1.3	—0.2	1.5	
	M	10	1:14	7:10	13:18	19:37	
			—0.1	1.2	—0.2	1.5	
	Tu	11	2:03	7:57	14:04	20:26	
			—0.1	1.2	—0.2	1.5	
	W	12	2:53	8:44	14:50	21:15	
			—0.1	1.2	—0.1	1.5	
	Th	13	3:44	9:32	15:39	22:05	
			0.0	1.1	—0.1	1.4	
S	F	14	4:35	10:25	16:31	22:57	
			0.0	1.1	0.0	1.3	
	S	15	5:28	11:22	17:27	23:52	
			0.1	1.0	0.0	1.3	
☽	S	16	6:25	12:22	18:27	. . .	
			0.1	1.0	0.1	. . .	
	M	17	0:48	7:20	13:22	19:30	
			1.2	0.1	1.0	0.1	
	Tu	18	1:45	8:15	14:22	20:32	
			1.2	0.1	1.0	0.1	
	W	19	2:40	9:05	15:17	21:34	
			1.1	0.1	1.1	0.1	
A	Th	20	3:30	9:52	16:08	22:28	
			1.1	0.0	1.2	0.1	
E	F	21	4:20	10:34	16:53	23:17	
			1.1	0.0	1.2	0.1	
	S	22	5:00	11:14	17:35	. . .	
			1.1	—0.1	1.3	. . .	
	S	23	0:00	5:40	11:52	18:16	
			0.1	1.1	—0.1	1.4	
○	M	24	0:42	6:17	12:30	18:56	
			0.0	1.1	—0.1	1.4	
	Tu	25	1:20	6:56	13:08	19:37	
			0.0	1.1	—0.2	1.5	
	W	26	1:57	7:34	13:50	20:20	
			0.0	1.1	—0.2	1.5	
	Th	27	2:37	8:15	14:31	21:03	
			0.0	1.1	—0.1	1.4	
	F	28	3:19	9:02	15:17	21:50	
			0.0	1.1	—0.1	1.4	
N	S	29	4:08	9:52	16:07	22:40	
			0.0	1.1	—0.1	1.4	
	S	30	4:56	10:50	17:02	23:32	
			0.0	1.1	0.0	1.3	
☾	M	31	5:50	11:50	18:01	. . .	
			0.0	1.1	0.0	. . .	

NOVEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	Tu	1	0:27	6:46	12:53	19:06	
			1.3	0.0	1.1	0.0	
	W	2	1:26	7:43	13:56	20:10	
			1.2	0.0	1.2	0.0	
	Th	3	2:22	8:38	14:57	21:16	
			1.2	0.0	1.3	0.0	
E	F	4	3:19	9:34	15:56	22:18	
			1.2	—0.1	1.3	0.0	
P	S	5	4:14	10:25	16:47	23:14	
			1.2	—0.1	1.4	0.0	
	S	6	5:05	11:16	17:39	. . .	
			1.2	—0.2	1.5	. . .	
●	M	7	0:08	5:55	12:04	18:28	
			—0.1	1.2	—0.2	1.5	
	Tu	8	1:00	6:44	12:53	19:17	
			—0.1	1.2	—0.2	1.5	
	W	9	1:50	7:31	13:40	20:04	
			—0.1	1.1	—0.2	1.5	
S	Th	10	2:38	8:22	14:27	20:52	
			0.0	1.1	—0.1	1.5	
	F	11	3:30	9:11	15 11	21:42	
			0.0	1.0	—0.1	1.4	
	S	12	4:13	10:05	16:07	22:32	
			0.0	1.0	0.0	1.3	
	S	13	5:08	11:00	17:05	23:25	
			0.1	1.0	0.1	1.3	
☽	M	14	5:58	12:00	18:04	. . .	
			0.1	1.0	0.1	. . .	
	Tu	15	0:18	6:48	12:58	19:06	
			1.2	0.1	1.0	0.2	
	W	16	1:10	7:36	13:54	20:08	
			1.1	0.1	1.1	0.2	
A	Th	17	2:00	8:22	14:46	21:04	
			1.1	0.0	1.1	0.2	
E	F	18	2:47	9:08	15:34	21:56	
			1.1	0.0	1.2	0.2	
	S	19	3:34	9:50	16:20	22:44	
			1.0	—0.1	1.3	0.2	
	S	20	4:15	10:32	17:01	23:27	
			1.0	—0.1	1.3	0.1	
	M	21	4:57	11:12	17:45	. . .	
			1.0	—0.1	1.4	. . .	
○	Tu	22	0:10	5:37	11:56	18:27	
			0.1	1.1	—0.2	1.5	
	W	23	0:50	6:17	12:38	19:10	
			0.1	1.1	—0.2	1.5	
	Th	24	1:30	7:01	13:20	19:53	
			0.1	1.1	—0.2	1.5	
N	F	25	2:13	7:48	14:04	20:40	
			0.0	1.1	—0.2	1.5	
	S	26	2:57	8:38	14:54	21:27	
			0.0	1.1	—0.1	1.4	
	S	27	3:43	9:33	15:47	22:17	
			0.0	1.1	—0.1	1.4	
	M	28	4:34	10:32	16:41	23:06	
			0.0	1.1	0.0	1.3	
	Tu	29	5:27	11:34	17:40	. . .	
			0.0	1.2	0.0	. . .	
☾	W	30	0:02	6:23	12:35	18:45	
			1.3	0.0	1.2	0.0	

DECEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
E	Th	1	0:57	7:17	13:37	19:50	
			1.2	0.0	1.2	0.0	
P	F	2	1:52	8:11	14:36	20:56	
			1.2	—0.1	1.3	0.0	
	S	3	2:50	9:05	15:32	21:58	
			1.2	—0.1	1.4	0.0	
	S	4	3:44	9:58	16:25	22:27	
			1.1	—0.2	1.4	0.0	
	M	5	4:38	10:50	17:18	23:52	
			1.1	—0.2	1.5	0.0	
●	Tu	6	5:30	11:40	18:06	. . .	
			1.1	—0.2	1.5	. . .	
	W	7	0:44	6:20	12:29	18:57	
			0.0	1.1	—0.2	1.5	
S	Th	8	1:35	7:10	13:17	19:45	
			0.0	1.1	—0.1	1.5	
	F	9	2:22	8:02	14:07	20:32	
			0.0	1.0	—0.1	1.4	
	S	10	3:08	8:53	14:56	21:20	
			0.0	1.0	0.0	1.4	
	S	11	3:55	9:44	15:47	22:10	
			0.0	1.0	0.0	1.3	
	M	12	4:41	10:37	16:40	22:57	
			0.0	1.0	0.1	1.2	
	Tu	13	5:25	11:30	17:37	23:44	
			0.0	1.0	0.2	1.2	
☽ A	W	14	6:10	12:25	18:33	. . .	
			0.0	1.1	0.2	. . .	
E	Th	15	0:30	6:55	13:18	19:30	
			1.1	0.0	1.1	0.2	
	F	16	1:16	7:40	14:08	20:24	
			1.1	0.0	1.1	0.2	
	S	17	2:00	8:25	14:57	21:17	
			1.0	—0.1	1.2	0.2	
	S	18	2:46	9:11	15:45	22:06	
			1.0	—0.1	1.3	0.2	
	M	19	3:32	9:55	16:28	22:52	
			1.0	—0.1	1.3	0.2	
	Tu	20	4:17	10:40	17:15	23:37	
			1.0	—0.2	1.4	0.2	
	W	21	5:00	11:28	18:00	. . .	
			1.0	—0.2	1.5	. . .	
○ N	Th	22	0:21	5:48	12:11	18:47	
			0.1	1.1	—0.2	1.5	
	F	23	1:05	6:37	12:59	19:31	
			0.1	1.1	—0.2	1.5	
	S	24	1:50	7:30	13:46	20:18	
			0.0	1.1	—0.2	1.5	
	S	25	2:36	8:22	14:38	21:07	
			0.0	1.1	—0.2	1.4	
	M	26	3:23	9:17	15:32	21:54	
			0.0	1.2	—0.1	1.4	
P	Tu	27	4:12	10:15	16:24	22:44	
			—0.1	1.2	—0.1	1.3	
	W	28	5:03	11:14	17:22	23:35	
			—0.1	1.2	0.0	1.3	
E ☾	Th	29	5:55	12:13	18:23	. . .	
			—0.1	1.3	0.0	. . .	
	F	30	0:28	6:50	13:12	19:27	
			1.2	—0.1	1.3	0.1	
	S	31	1:24	7:44	14:11	20:32	
			1.2	—0.1	1.3	0.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon: all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:57 0.0	8:06 3.1	16:00 —0.1	20:38 2.3
N	S	2	3:53 0.1	8:56 3.2	16:54 —0.2	21:27 2.4
○	S	3	4:50 0.0	9:45 3.1	17:45 —0.2	22:20 2.4
P	M	4	5:48 0.2	10:37 3.1	18:37 —0.2	23:10 2.5
	Tu	5	6:45 0.0	11:29 3.0	19:25 —0.2	. . . . . .
	W	6	0:04 2.5	7:42 0.0	12:18 2.9	20:12 —0.2
	Th	7	0:56 2.6	8:39 0.1	13:10 2.7	21:02 —0.3
E	F	8	1:48 2.6	9:30 0.0	14:04 2.5	21:48 —0.2
☾	S	9	2:43 2.7	10:30 0.1	15:00 2.4	22:40 —0.1
	S	10	3:42 2.7	11:26 0.1	15:57 2.2	23:30 0.0
	M	11	4:07 2.7	12:20 0.1	16:57 2.1	. . . . . .
	Tu	12	0:18 0.0	5:32 2.7	13:16 0.1	17:54 2.0
	W	13	1:09 0.1	6:24 2.7	14:15 0.1	18:48 2.0
	Th	14	2:00 0.2	7:14 2.7	15:02 0.1	19:40 2.0
S	F	15	2:54 0.3	7:58 2.8	15:54 0.0	20:30 2.0
	S	16	3:42 0.3	8:40 2.8	16:40 0.0	21:12 2.1
●	S	17	4:33 0.3	9:25 2.8	17:25 0.0	21:58 2.1
	M	18	5:20 0.3	10:07 2.7	18:06 0.0	22:39 2.2
A	Tu	19	6:07 0.3	10:47 2.7	18:45 0.0	23:20 2.3
	W	20	6:52 0.4	11:30 2.7	19:22 0.0	. . . . . .
	Th	21	0:02 2.3	7:38 0.4	12:10 2.6	20:02 0.1
E	F	22	0:44 2.4	8:23 0.3	12:52 2.5	20:44 0.1
	S	23	1:36 2.6	9:15 0.3	13:40 2.4	21:25 0.1
	S	24	2:12 2.6	10:03 0.3	14:27 2.3	22:12 0.1
☽	M	25	3:07 2.7	10:55 0.3	15:22 2.2	22:57 0.1
	Tu	26	4:00 2.8	11:48 0.2	16:16 2.2	23:47 0.0
	W	27	4:57 2.9	12:44 0.2	17:20 2.2	. . . . . .
	Th	28	0:40 0.0	5:54 2.9	13:38 0.1	18:20 2.2
N	F	29	1:37 0.0	6:50 3.0	14:35 0.0	19:18 2.2
	S	30	2:34 0.0	7:45 3.0	15:33 0.0	20:12 2.3
	S	31	3:33 —0.1	8:37 3.1	16:28 —0.1	21:07 2.4

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○ P	M	1	4:33 —0.1	9:27 3.1	17:21 —0.2	21:58 2.6
	Tu	2	5:32 —0.1	10:21 3.0	18:12 —0.2	22:50 2.7
	W	3	6:30 —0.1	11:10 2.9	19:00 —0.3	23:40 2.7
E	Th	4	7:24 —0.1	12:00 2.8	19:47 —0.3	. . . . . .
	F	5	0:32 2.7	8:20 0.0	12:50 2.6	20:35 —0.3
	S	6	1:20 2.7	9:14 0.0	13:40 2.5	21:23 —0.2
	S	7	2:16 2.7	10:06 0.0	14:34 2.3	22:14 —0.2
☾	M	8	3:12 2.7	10:57 0.1	15:30 2.2	23:00 0.0
	Tu	9	4:08 2.6	11:50 0.1	16:27 2.1	23:52 0.1
	W	10	5:00 2.6	12:45 0.2	17:27 2.0	. . . . . .
S	Th	11	0:40 0.1	5:52 2.6	13:38 0.3	18:20 2.0
	F	12	1:34 0.2	6:42 2.6	14:29 0.2	19:13 2.0
	S	13	2:27 0.3	7:32 2.6	15:17 0.1	20:00 2.0
	S	14	3:17 0.3	8:16 2.6	16:05 0.1	20:47 2.1
A	M	15	4:08 0.3	9:00 2.6	16:50 0.1	21:28 2.2
●	Tu	16	4:54 0.3	9:42 2.6	17:32 0.1	22:10 2.3
	W	17	5:42 0.3	10:22 2.6	18:10 0.1	22:50 2.4
	Th	18	6:26 0.3	11:02 2.5	18:50 0.1	23:32 2.5
E	F	19	7:12 0.4	11:44 2.5	19:30 0.1	. . . . . .
	S	20	0:10 2.6	7:57 0.3	12:26 2.5	20:12 0.1
	S	21	0:48 2.7	8:46 0.3	13:12 2.4	20:57 0.1
	M	22	1:40 2.7	9:35 0.3	14:00 2.3	21:44 0.1
	Tu	23	2:32 2.8	10:27 0.3	14:52 2.3	22:30 0.1
☽	W	24	3:28 2.8	11:22 0.2	15:52 2.2	23:22 0.1
	Th	25	4:27 2.9	12:17 0.2	16:53 2.2	. . . . . .
N	F	26	0:17 0.1	5:27 2.8	13:12 0.1	17:55 2.3
	S	27	1:16 0.1	6:27 2.8	14:07 0.1	18:55 2.3
	S	28	2:18 0.0	7:22 2.9	15:04 0.0	19:52 2.4
	M	29	3:19 0.0	8:18 2.9	16:00 0.0	20:46 2.6

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	4:20 —0.1	9:12 2.8	16:54 —0.1	21:37 2.7
	W	2	5:17 —0.1	10:02 2.8	17:44 —0.2	22:30 2.8
E	Th	3	6:15 —0.2	10:52 2.7	18:32 —0.3	23:18 2.9
	F	4	7:07 —0.1	11:38 2.7	19:20 —0.2	. . . . . .
	S	5	0:07 2.9	8:00 —0.1	12:27 2.5	20:08 —0.2
	S	6	0:55 2.8	8:50 —0.1	13:16 2.4	20:57 —0.1
	M	7	1:45 2.8	9:40 0.0	14:10 2.3	21:47 0.0
☾	Tu	8	2:37 2.7	10:29 0.1	15:02 2.2	22:34 0.1
S	W	9	3:31 2.6	11:20 0.2	15:58 2.1	23:24 0.2
	Th	10	4:25 2.5	12:10 0.2	16:54 2.0	. . . . . .
	F	11	0:15 0.3	5:18 2.5	13:00 0.2	17:17 2.0
	S	12	1:17 0.3	6:10 2.4	13:52 0.2	18:42 2.0
	S	13	2:00 0.4	7:00 2.4	14:40 0.2	19:32 2.1
A	M	14	2:52 0.4	7:47 2.4	15:26 0.2	20:16 2.2
	Tu	15	3:42 0.3	8:34 2.5	16:10 0.2	21:00 2.3
	W	16	4:30 0.3	9:17 2.5	16:52 0.2	21:40 2.5
● E	Th	17	5:17 0.2	9:59 2.5	17:34 0.2	22:20 2.6
	F	18	6:04 0.2	10:40 2.5	18:14 0.2	23:00 2.7
	S	19	6:50 0.2	11:22 2.5	18:57 0.1	23:42 2.8
	S	20	7:35 0.2	12:05 2.4	19:42 0.1	. . . . . .
	M	21	0:25 2.9	8:22 0.1	12:50 2.4	20:28 0.2
	Tu	22	1:10 2.9	9:11 0.1	13:37 2.3	21:18 0.1
	W	23	2:04 2.8	10:02 0.2	14:31 2.3	22:10 0.1
N ☽	Th	24	3:00 2.8	10:55 0.2	15:28 2.3	23:03 0.2
	F	25	4:00 2.7	11:48 0.2	16:28 2.3	. . . . . .
	S	26	0:00 0.2	5:00 2.7	12:44 0.1	17:30 2.4
	S	27	1:02 0.1	6:02 2.7	13:41 0.1	18:31 2.5
	M	28	2:06 0.1	7:02 2.6	14:36 0.1	19:28 2.6
P	Tu	29	3:05 0.0	8:00 2.6	15:32 0.0	20:20 2.7
E	W	30	4:06 0.0	8:52 2.6	16:22 —0.1	21:14 2.8
○	Th	31	5:03 —0.1	9:40 2.5	17:15 —0.1	22:04 2.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:56	10:28	18:05	22:52
			—0.2	2.5	—0.2	3.0
	S	2	6:47	11:17	18:52	23:38
			—0.2	2.5	—0.1	2.9
	S	3	7:36	12:05	19:40	. . .
			—0.2	2.4	—0.1	. . .
	M	4	0:25	8:22	12:50	20:30
			2.9	—0.1	2.3	0.0
	Tu	5	1:12	9:10	13:42	21:18
			2.8	0.0	2.2	0.1
S	W	6	2:00	9:57	14:35	22:55
			2.7	0.0	2.2	0.2
☾	Th	7	2:50	10:44	15:25	22:05
			2.6	0.1	2.1	0.3
	F	8	3:44	11:32	16:20	23:47
			2.4	0.2	2.1	0.4
	S	9	4:37	12:20	17:15	. . .
			2.4	0.2	2.1	. . .
A	S	10	0:40	5:32	13:08	18:04
			0.4	2.3	0.2	2.2
	M	11	1:33	6:25	13:57	18:55
			0.4	2.2	0.3	2.3
	Tu	12	2:26	7:15	14:44	19:40
			0.3	2.1	0.2	2.4
E	W	13	3:16	8:04	15:29	20:24
			0.3	2.2	0.2	2.6
	Th	14	4:06	8:49	16:14	21:05
			0.2	2.2	0.2	2.7
●	F	15	4:54	9:32	16:57	21:48
			0.1	2.2	0.2	2.7
	S	16	5:42	10:17	17:42	22:32
			0.0	2.2	0.1	2.8
	S	17	6:28	10:58	18:28	23:15
			0.0	2.2	0.1	2.8
	M	18	7:15	11:42	19:15	. . .
			0.0	2.2	0.1	. . .
	Tu	19	0:00	8:02	12:30	20:05
			2.8	0.0	2.2	0.1
N	W	20	0:47	8:50	13:20	20:57
			2.7	0.0	2.2	0.2
	Th	21	1:40	9:39	14:14	21:50
			2.6	0.0	2.2	0.2
☽	F	22	2:34	10:30	15:10	22:48
			2.4	0.1	2.2	0.2
	S	23	3:35	11:24	16:10	23:47
			2.3	0.1	2.3	0.2
	S	24	4:37	12:17	17:12	. . .
			2.2	0.1	2.4	. . .
	M	25	0:50	5:40	13:12	18:12
			0.1	2.2	0.0	2.5
P	Tu	26	1:52	6:40	14:06	19:08
			0.0	2.2	0.0	2.6
E	W	27	2:50	7:38	15:00	20:00
			0.0	2.2	0.0	2.8
	Th	28	3:48	8:28	15:52	20:50
			—0.1	2.2	0.0	2.8
○	F	29	4:45	9:18	16:44	21:38
			—0.1	2.2	0.0	2.8
	S	30	5:37	10:07	17:35	22:23
			—0.2	2.2	0.1	2.9

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	6:27	10:54	18:25	23:10
			—0.2	2.3	0.0	3.0
	M	2	7:12	11:40	19:15	23:55
			—0.2	2.3	0.1	2.9
S	Tu	3	7:57	12:27	20:02	. . .
			—0.1	2.3	0.1	. . .
	W	4	0:38	8:40	13:16	20:50
			2.8	—0.1	2.2	0.2
	Th	5	1:25	9:25	14:06	21:38
			2.7	0.1	2.2	0.3
	F	6	2:12	10:10	14:55	22:27
			2.5	0.1	2.2	0.4
☾	S	7	3:02	10:54	15:48	23:17
			2.4	0.1	2.2	0.5
A	S	8	3:55	11:42	16:40	. . .
			2.3	0.2	2.2	. . .
	M	9	0:10	4:50	12:27	17:30
			0.4	2.2	0.2	2.3
	Tu	10	1:02	5:45	13:14	18:18
			0.4	2.2	0.3	2.5
E	W	11	1:56	6:42	14:01	19:05
			0.3	2.2	0.2	2.6
	Th	12	2:45	7:31	14:47	19:50
			0.2	2.2	0.2	2.7
	F	13	3:37	8:18	15:34	20:35
			0.1	2.2	0.3	2.9
	S	14	4:28	9:05	16:22	21:18
			0.0	2.2	0.2	2.9
◐	S	15	5:18	9:50	17:12	22:05
			0.0	2.2	0.2	3.0
	M	16	6:07	10:37	18:02	22:52
			—0.1	2.3	0.2	3.1
	Tu	17	6:56	11:23	18:54	23:40
			—0.1	2.4	0.3	3.1
	W	18	7:43	12:12	19:47	. . .
			—0.1	2.3	0.2	. . .
	Th	19	0:27	8:30	13:05	20:40
			3.0	—0.1	2.4	0.2
	F	20	1:18	9:18	13:57	21:37
			2.9	—0.1	2.4	0.2
	S	21	2:14	10:08	14:53	22:35
			2.7	0.0	2.4	0.2
☽ P	S	22	3:12	11:00	15:58	23:35
			2.5	0.0	2.5	0.2
	M	23	4:15	11:51	16:55	. . .
			2.4	0.0	2.6	. . .
E	Tu	24	0:35	5:18	12:44	17:52
			0.1	2.3	0.1	2.7
	W	25	1:36	6:18	13:36	18:47
			0.1	2.2	0.1	2.8
	Th	26	2:33	7:15	14:30	19:39
			0.0	2.2	0.1	2.9
	F	27	3:30	8:07	15:22	20:27
			0.0	2.2	0.1	2.9
	S	28	4:24	8:55	16:16	21:14
			—0.1	2.2	0.1	3.0
○	S	29	5:25	9:43	17:06	21:58
			0.1	2.2	0.1	2.9
S	M	30	6:02	10:30	17:58	22:42
			0.0	2.2	0.2	2.9
	Tu	31	6:47	11:17	18:47	23:37
			—0.1	2.2	0.3	2.9

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	7:30	12:02	19:35	. . .
			—0.1	2.1	0.3	. . .
	Th	2	0:08	8:12	12:50	20:22
			2.7	0.0	2.1	0.4
	F	3	0:52	8:58	13:37	21:09
			2.6	0.0	2.2	0.4
	S	4	1:48	9:34	14:20	21:57
			2.5	0.1	2.2	0.4
A	S	5	2:25	10:16	15:10	22:45
			2.4	0.1	2.2	0.5
☾	M	6	3:15	11:02	16:00	23:37
			2.3	0.2	2.3	0.5
E	Tu	7	4:10	11:47	16:52	. . .
			2.2	0.2	2.4	. . .
	W	8	0:30	5:08	12:32	17:42
			0.4	2.1	0.2	2.5
	Th	9	1:24	6:05	13:20	18:58
			0.3	2.1	0.2	2.7
	F	10	2:13	6:57	14:08	19:20
			0.2	2.1	0.2	2.8
	S	11	3:08	7:47	15:00	20:07
			0.1	2.1	0.2	2.9
	S	12	4:02	8:37	15:50	20:55
			0.0	2.2	0.2	3.1
●	M	13	4:55	9:27	16:45	21:42
			—0.1	2.2	0.2	3.1
N	Tu	14	5:45	10:17	17:40	22:31
			—0.1	2.2	0.1	3.1
	W	15	6:34	11:05	18:35	23:22
			—0.1	2.3	0.2	3.0
	Th	16	7:22	11:55	19:32	. . .
			—0.1	2.4	0.2	. . .
P	F	17	0:10	8:09	12:47	20:27
			2.9	—0.2	2.4	0.2
	S	18	1:02	8:57	13:40	21:24
			2.7	—0.1	2.5	0.2
	S	19	1:55	9:45	14:36	22:20
			2.6	—0.1	2.5	0.2
☽ E	M	20	2:52	10:36	15:35	23:17
			2.5	—0.1	2.6	0.2
	Tu	21	3:52	11:27	16:32	. . .
			2.3	0.0	2.7	. . .
	W	22	0:17	4:54	12:17	17:32
			0.2	2.2	0.0	2.7
	Th	23	1:16	5:52	13:10	18:26
			0.1	2.1	0.1	2.7
	F	24	2:14	6:50	14:02	19:17
			0.1	2.1	0.1	2.8
	S	25	3:06	7:40	14:56	20:05
			0.0	2.1	0.2	2.9
	S	26	4:00	8:32	15:47	20:50
			0.0	2.1	0.2	2.9
S ○	M	27	4:50	9:20	16:38	21:33
			0.0	2.1	0.2	2.8
	Tu	28	5:37	10:12	17:32	22:17
			0.0	2.1	0.3	2.8
	W	29	6:21	10:51	18:20	22:49
			—0.1	2.2	0.3	2.8
	Th	30	7:02	11:35	19:07	23:42
			0.0	2.1	0.3	2.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	7:41	12:18	19:53	. . .	E	M	1	0:36	8:26	13:08	20:55		Th	1	1:37	9:20	14:06	22:04
			0.0	2.2	0.4	. . .				2.5	0.1	2.5	0.4				2.3	0.3	2.8	0.2
	S	2	0:22	8:20	13:02	20:39		Tu	2	1:20	9:08	13:52	21:44		F	2	2:30	10:08	15:00	22:55
			2.6	0.0	2.3	0.4				2.4	0.3	2.6	0.4				2.3	0.3	2.8	0.3
A	S	3	1:05	9:00	13:43	21:25		W	3	2:07	9:52	14:42	22:33	☾	S	3	3:24	10:58	15:57	23:49
			2.5	0.1	2.3	0.4				2.3	0.2	2.7	0.4				2.2	0.3	2.8	0.3
E	M	4	1:50	9:42	14:30	22:12	☾	Th	4	2:58	10:37	15:35	23:24	N	S	4	4:24	11:54	16:57	. . .
			2.4	0.1	2.4	0.4				2.2	0.2	2.8	0.3				2.2	0.3	2.7	. . .
☾	Tu	5	2:38	10:26	15:20	23:04		F	5	3:54	11:24	16:28	. . .		M	5	0:44	5:25	12:50	17:56
			2.3	0.2	2.5	0.4				2.2	0.2	2.8	. . .				0.2	2.2	0.3	2.8
	W	6	3:32	11:12	16:12	23:57		S	6	0:18	4:52	12:17	17:27		Tu	6	1:39	6:25	13:51	18:55
			2.2	0.2	2.6	0.4				0.2	2.1	0.2	2.8				0.1	2.3	0.2	2.8
	Th	7	4:30	11:57	17:04	. . .		S	7	1:13	5:52	13:11	18:22		W	7	2:35	7:25	14:53	19:51
			2.2	0.2	2.7	. . .				0.2	2.1	0.2	2.8				0.1	2.5	0.1	2.8
	F	8	0:50	5:27	12:45	17:57	N	M	8	2:06	6:52	14:07	19:18		Th	8	3:30	8:19	15:52	20:47
			0.3	2.1	0.2	2.9				0.1	2.2	0.2	3.0				0.1	2.6	0.1	2.7
	S	9	1:42	6:22	13:36	18:50		Tu	9	3:04	7:47	15:07	20:12	P	F	9	4:25	9:11	16:52	21:38
			0.2	2.1	0.2	3.0				0.0	2.3	0.2	3.0	●			0.0	2.7	0.0	2.8
	S	10	2:37	7:18	14:32	19:40		W	10	4:00	8:40	16:07	21:05	E	S	10	5:16	10:02	17:49	22:27
			0.1	2.1	0.2	3.0				—0.1	2.4	0.1	3.0				0.0	2.8	—0.1	2.7
N	M	11	3:34	8:11	15:27	20:32	●	Th	11	4:54	9:34	17:05	21:56		S	11	6:05	10:52	18:42	23:15
			0.0	2.2	0.1	3.1				—0.1	2.5	0.0	3.0				—0.1	2.9	—0.1	2.7
	Tu	12	4:28	9:08	16:24	21:22	P	F	12	5:45	10:25	18:02	22:47		M	12	6:55	11:40	19:34	. . .
			—0.1	2.8	0.1	3.1				—0.2	2.7	0.0	2.9				—0.2	3.0	—0.1	. . .
●	W	13	5:22	9:54	17:22	22:12		S	13	6:34	11:16	19:00	23:37		Tu	13	0:04	7:43	12:28	20:26
			—0.1	2.3	0.1	3.1				—0.2	2.7	0.0	2.7				2.6	—0.1	2.9	0.0
P	Th	14	6:11	10:47	18:17	23:05	E	S	14	7:22	12:07	19:58	. . .		W	14	0:55	8:32	13:20	21:16
			—0.2	2.5	0.1	3.0				—0.2	2.8	—0.1	. . .				2.5	0.0	2.9	0.0
	F	15	7:00	11:37	19:15	23:55		M	15	0:27	8:10	12:55	20:47		Th	15	1:43	9:24	14:12	22:07
			—0.1	2.6	0.1	2.9				2.7	—0.2	2.8	0.0				2.8	0.0	2.8	0.1
	S	16	7:46	12:28	20:12	. . .		Tu	16	1:16	8:58	13:48	21:42	☽	F	16	2:38	10:14	15:06	22:57
			—0.2	2.6	0.1	. . .				2.5	—0.2	2.8	0.0				2.2	0.1	2.7	0.1
E	S	17	0:45	8:34	13:20	21:08	☽	W	17	2:07	9:48	14:43	22:33	S	S	17	3:34	11:04	16:02	23:47
			2.8	—0.2	2.7	0.1				2.4	—0.1	2.8	0.1				2.1	0.2	2.5	0.2
	M	18	1:37	9:22	14:14	22:02		Th	18	3:02	10:38	15:38	23:26		S	18	4:30	11:56	16:57	. . .
			2.6	—0.2	2.7	0.2				2.2	0.0	2.7	0.1				2.1	0.3	2.5	. . .
☽	Tu	19	2:20	10:12	15:10	22:58		F	19	4:00	11:28	16:37	. . .		M	19	0:38	5:28	12:50	17:50
			2.4	—0.1	2.7	0.2				2.1	0.1	2.6	. . .				0.2	2.1	0.4	2.4
	W	20	3:27	11:02	16:10	23:54	S	S	20	0:20	5:00	12:20	17:31		Tu	20	1:30	6:24	13:45	18:42
			2.3	0.0	2.7	0.1				0.1	2.1	0.2	2.6				0.2	2.1	0.4	2.4
	Th	21	4:27	11:52	17:07	. . .		S	21	1:15	6:00	13:15	18:22		W	21	2:20	7:14	14:38	19:29
			2.2	0.0	2.7	. . .				0.1	2.0	0.3	2.6				0.2	2.2	0.4	2.4
	F	22	0:52	5:26	12:44	18:02		M	22	2:08	6:53	14:10	19:12		Th	22	3:06	8:00	15:30	20:18
			0.2	2.1	0.2	2.7				0.1	2.0	0.3	2.5				0.3	2.2	0.4	2.4
	S	23	1:46	6:51	13:37	18:52		Tu	23	2:58	7:44	15:02	20:00	A	F	23	3:52	8:43	16:16	21:00
			0.1	2.0	0.2	2.7				0.2	2.1	0.3	2.6				0.2	2.4	0.3	2.4
S	S	24	2:40	7:18	14:31	19:40		W	24	3:47	8:31	15:54	20:45	○	S	24	4:35	9:22	17:02	21:42
			0.1	2.0	0.2	2.7				0.2	2.1	0.4	2.6	E			0.3	2.5	0.3	2.4
	M	25	3:30	8:09	15:24	20:25	○	Th	25	4:32	9:13	16:42	21:28		S	25	5:15	10:02	17:48	22:23
			0.0	2.0	0.2	2.7				0.2	2.2	0.4	2.5				0.3	2.6	0.3	2.4
	Tu	26	4:20	8:56	16:17	21:08	A	F	26	5:14	9:55	17:27	22:10		M	26	5:55	10:42	18:32	23:02
			0.0	2.1	0.3	2.7				0.2	2.3	0.3	2.5				0.3	2.7	0.3	2.3
○	W	27	5:07	9:40	17:05	21:53		S	27	5:54	10:35	18:12	22:50		Tu	27	6:36	11:22	19:16	23:44
			0.1	2.1	0.4	2.7				0.2	2.4	0.3	2.5				0.4	2.8	0.3	2.3
	Th	28	5:50	10:25	17:54	22:35	E	S	28	6:34	11:14	18:56	23:28		W	28	7:20	12:03	20:00	. . .
			0.0	2.2	0.3	2.7				0.2	2.5	0.3	2.5				0.4	2.8	0.2	. . .
	F	29	6:30	11:05	18:39	23:15		M	29	7:10	11:54	19:40	. . .		Th	29	0:27	8:06	12:46	20:47
			0.1	2.3	0.4	2.6				0.3	2.6	0.3	. . .				2.3	0.3	2.8	0.2
A	S	30	7:09	11:47	19:23	23:55		Tu	30	0:08	7:52	12:35	20:26		F	30	1:15	8:53	13:36	21:36
			0.2	2.3	0.4	2.6				2.4	0.3	2.7	0.4				2.3	0.3	2.8	0.2
	S	31	7:46	12:27	20:08	. . .		W	31	0:52	8:35	13:18	21:14							
			0.2	2.4	0.4	. . .				2.4	0.2	2.8	0.2							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
N	S	1	2:05	9:43	14:30	22:27	
			2.2	0.3	2.8	0.2	
☾	S	2	3:00	10:37	15:27	23:20	
			2.2	0.3	2.7	0.2	
	M	3	3:58	11:34	16:28	. . .	
			2.2	0.3	2.7	. . .	
	Tu	4	0:15	5:00	12:35	17:32	
			0.2	2.4	0.2	2.6	
	W	5	1:10	6:02	13:36	18:32	
			0.2	2.5	0.2	2.6	
	Th	6	2:05	7:00	14:37	19:30	
			0.2	2.6	0.1	2.6	
	F	7	3:00	7:54	15:37	20:26	
			0.1	2.7	0.1	2.6	
P E	S	8	3:54	8:47	16:35	21:15	
			0.1	2.9	0.0	2.6	
●	S	9	4:46	9:36	17:32	22:05	
			0.0	3.0	—0.1	2.6	
	M	10	5:36	10:26	18:24	22:54	
			0.0	3.0	—0.1	2.5	
	Tu	11	6:27	11:15	19:12	23:42	
			—0.1	3.1	—0.1	2.4	
	W	12	7:17	12:00	20:02	. . .	
			0.0	3.0	—0.1	. . .	
	Th	13	0:30	8:09	12:50	20:50	
			2.4	0.0	2.9	—0.1	
S	F	14	1:22	9:00	13:38	21:37	
			2.3	0.1	2.7	0.0	
	S	15	2:15	9:49	14:30	22:25	
			2.2	0.1	2.6	0.1	
☽	S	16	3:07	10:40	15:22	23:12	
			2.2	0.3	2.5	0.1	
	M	17	4:02	11:30	16:18	. . .	
			2.2	0.4	2.4	. . .	
	Tu	18	0:00	4:57	12:24	17:12	
			0.2	2.2	0.4	2.3	
	W	19	0:50	5:50	13:18	18:06	
			0.2	2.2	0.4	2.2	
A	Th	20	1:37	6:40	14:12	19:00	
			0.2	2.3	0.4	2.2	
E	F	21	2:23	7:25	15:02	19:47	
			0.3	2.4	0.3	2.2	
	S	22	3:10	8:07	15:50	20:32	
			0.3	2.5	0.3	2.2	
	S	23	3:54	8:48	16:36	21:14	
			0.3	2.7	0.2	2.2	
○	M	24	4:37	9:30	17:24	21:55	
			0.3	2.8	0.2	2.3	
	Tu	25	5:20	10:12	18:08	22:40	
			0.3	2.9	0.0	2.3	
	W	26	6:04	10:55	18:55	23:22	
			0.4	3.0	0.1	2.3	
	Th	27	6:50	11:37	19:40	. . .	
			0.3	3.0	0.0	. . .	
	F	28	0:07	7:41	12:22	20:27	
			2.3	0.3	2.9	0.1	
N	S	29	0:56	8:31	13:11	21:12	
			2.3	0.3	2.8	0.1	
	S	30	1:47	9:25	14:05	22:03	
			2.3	0.3	2.7	0.1	
☾	M	31	2:40	10:21	15:02	22:56	
			2.3	0.2	2.7	0.1	

NOVEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	Tu	1	3:40	11:18	16:04	23:48	
			2.4	0.3	2.5	0.2	
	W	2	4:41	12:20	17:07	. . .	
			2.5	0.2	2.4	. . .	
	Th	3	0:42	5:40	13:22	18:10	
			0.2	2.6	0.2	2.4	
E	F	4	1:34	6:40	14:20	19:10	
			0.1	2.7	0.1	2.4	
P	S	5	2:30	7:32	15:20	20:02	
			0.0	2.8	0.0	2.4	
	S	6	3:22	8:25	16:18	20:54	
			0.0	3.0	—0.1	2.4	
●	M	7	4:15	9:13	17:12	21:42	
			0.0	3.1	—0.2	2.4	
	Tu	8	5:08	10:00	18:05	22:32	
			0.0	3.1	—0.2	2.3	
	W	9	6:00	10:48	18:52	23:20	
			0.0	3.0	—0.2	2.3	
S	Th	10	6:52	11:36	19:37	. . .	
			0.1	3.0	—0.2	. . .	
	F	11	0:08	7:44	12:20	20:20	
			2.3	0.1	2.8	—0.1	
	S	12	0:58	8:33	13:07	21:06	
			2.3	0.3	2.7	—0.1	
	S	13	1:48	9:22	13:56	21:50	
			2.2	0.4	2.6	0.0	
☽	M	14	2:37	10:11	14:44	22:37	
			2.2	0.4	2.4	0.1	
	Tu	15	3:30	11:02	15:37	23:23	
			2.2	0.4	2.3	0.2	
	W	16	4:24	11:53	16:30	. . .	
			2.3	0.4	2.2	. . .	
A	Th	17	0:08	5:14	12:45	17:27	
			0.2	2.3	0.4	2.1	
E	F	18	0:54	6:02	13:38	18:22	
			0.3	2.4	0.3	2.1	
	S	19	1:40	6:47	14:30	19:12	
			0.3	2.6	0.2	2.1	
	S	20	2:26	7:32	15:17	20:00	
			0.3	2.7	0.2	2.1	
	M	21	3:15	8:17	16:08	20:44	
			0.3	2.8	0.1	2.2	
○	Tu	22	4:00	9:00	16:57	21:28	
			0.3	2.9	0.0	2.2	
	W	23	4:47	9:45	17:46	22:15	
			0.3	3.0	0.0	2.2	
	Th	24	5:37	10:32	18:32	23:00	
			0.3	3.1	0.0	2.3	
N	F	25	6:27	11:17	19:20	23:47	
			0.3	3.0	—0.1	2.3	
	S	26	7:20	12:02	20:05	. . .	
			0.3	3.0	—0.1	. . .	
	S	27	0:38	8:15	12:50	20:52	
			2.3	0.2	2.9	—0.1	
	M	28	1:30	9:08	13:45	21:40	
			2.4	0.3	2.7	0.0	
	Tu	29	2:22	10:07	14:40	22:30	
			2.5	0.2	2.6	0.0	
☾	W	30	3:22	11:05	15:40	23:22	
			2.6	0.2	2.4	0.0	

DECEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
E	Th	1	4:23	12:05	16:44	. . .	
			2.6	0.2	2.3	. . .	
P	F	2	0:15	5:22	13:05	17:47	
			0.1	2.7	0.1	2.2	
	S	3	1:08	6:20	14:05	18:45	
			0.1	2.8	0.0	2.2	
	S	4	2:00	7:12	15:02	19:38	
			0.1	2.9	0.0	2.2	
	M	5	2:54	8:05	15:58	20:30	
			0.1	3.0	0.1	2.2	
●	Tu	6	3:47	8:43	16:50	21:20	
			0.1	3.0	—0.1	2.2	
	W	7	4.40	9:37	17:40	22:10	
			0.1	3.0	—0.1	2.2	
S	Th	8	5:35	10:22	18:27	22:58	
			0.2	3.0	—0.1	2.2	
	F	9	6:26	11:09	19:12	23:45	
			0.2	2.9	—0.1	2.2	
	S	10	7:17	11:54	19:55	. . .	
			0.3	2.8	—0.1	. . .	
	S	11	0:32	8:06	12:36	20:37	
			2.2	0.4	2.7	0.0	
	M	12	1:20	8:50	13:22	21:20	
			2.2	0.4	2.5	0.0	
	Tu	13	2:05	9:42	14:07	22:00	
			2.2	0.4	2.4	0.1	
☽ A	W	14	2:52	10:30	14:57	22:45	
			2.3	0.5	2.3	0.2	
E	Th	15	3:42	11:20	15:50	23:30	
			2.3	0.5	2.2	0.3	
	F	16	4:32	12:10	16:47	. . .	
			2.3	0.4	2.1	. . .	
	S	17	0:14	5:22	13:08	17:42	
			0.3	2.6	0.4	2.0	
	S	18	0:58	6:13	13:55	18:35	
			0.3	2.7	0.3	2.0	
	M	19	1:46	7:00	14:46	19:26	
			0.3	2.8	0.2	2.1	
	Tu	20	2:35	7:45	15:40	20:16	
			0.3	2.9	0.1	2.1	
	W	21	3:26	8:34	16:32	21:04	
			0.3	3.0	0.0	2.2	
○ N	Th	22	4:18	9:20	17:22	21:50	
			0.3	3.1	0.0	2.2	
	F	23	5:16	10:08	18:10	22:40	
			0.3	3.1	—0.1	2.3	
	S	24	6:07	10:58	18:57	23:30	
			0.2	3.1	—0.1	2.4	
	S	25	7:05	11:46	19:44	. . .	
			0.2	3.0	—0.1	. . .	
	M	26	0:20	8:00	12:05	20:32	
			2.5	0.2	2.9	—0.1	
P	Tu	27	1:12	8:55	13:28	21:18	
			2.5	0.2	2.7	—0.1	
	W	28	2:06	9:50	14:22	22:07	
			2.6	0.2	2.5	—0.1	
E ☾	Th	29	3:02	10:47	15:20	22:58	
			2.6	0.2	2.4	0.0	
	F	30	4:00	11:46	16:20	23:48	
			2.7	0.2	2.2	0.0	
	S	31	5:00	12:45	17:20	. . .	
			2.8	0.1	2.1	. . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

[1] The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	6:04 6.1	12:21 —0.4	18:18 5.1	. . .	
N	S	2	0:30 —0.9	6:52 6.4	13:12 —0.7	19:10 5.2	
○	S	3	1:20 —1.0	7:42 6.5	14:01 —0.8	20:02 5.4	
P	M	4	2:12 —1.1	8:34 6.5	14:52 —0.9	20:53 5.4	
	Tu	5	3:02 —1.0	9:23 6.4	15:40 —0.9	21:45 5.5	
	W	6	3:56 —0.9	10:15 6.2	16:30 —0.9	22:41 5.4	
	Th	7	4:50 —0.7	11:06 5.9	17:23 —0.7	23:39 5.4	
E	F	8	5:46 —0.4	12:02 5.5	18:19 —0.7	. . .	
☾	S	9	0:37 5.3	6:47 —0.2	13:00 5.2	19:15 —0.5	
	S	10	1:42 5.3	7:48 —0.1	14:02 4.9	20:13 —0.4	
	M	11	2:44 5.3	8:53 0.2	15:08 4.7	21:12 —0.3	
	Tu	12	3:45 5.3	9:56 0.3	16:07 4.7	22:07 —0.3	
	W	13	4:42 5.4	10:56 0.3	17:08 4.7	23:00 —0.4	
	Th	14	5:35 5.5	11:50 0.3	18:00 4.7	23:50 —0.3	
S	F	15	6:24 5.6	12:39 0.2	18:48 4.6	. . .	
	S	16	0:37 —0.3	7:05 5.6	13:19 —0.2	19:30 4.6	
●	S	17	1:20 —0.2	7:44 5.5	13:59 0.1	20:07 4.5	
	M	18	2:00 —0.2	8:20 5.4	14:32 0.1	20:40 4.5	
A	Tu	19	2:38 0.0	8:54 5.3	15:08 0.0	21:12 4.5	
	W	20	3:14 0.1	9:26 5.2	15:45 0.0	21:46 4.5	
	Th	21	3:50 0.2	10:00 5.1	16:22 0.0	22:22 4.6	
E	F	22	4:30 0.3	10:35 5.0	17:01 0.1	23:03 4.7	
	S	23	5:15 0.4	11:14 4.8	17:45 0.1	23:52 4.8	
	S	24	6:05 0.5	12:00 4.7	18:34 0.1	. . .	
☽	M	25	0:45 4.9	7:01 0.5	12:52 4.6	19:26 0.0	
	Tu	26	1:44 5.1	8:00 0.4	13:50 4.5	20:22 0.0	
	W	27	2:46 5.2	9:02 0.3	14:52 4.5	21:22 —0.2	
	Th	28	3:47 5.5	10:04 0.1	15:58 4.6	22:20 —0.4	
N	F	29	4:47 5.8	11:04 —0.1	17:00 4.8	23:17 —0.7	
	S	30	5:42 6.1	12:00 —0.4	18:00 5.1	. . .	
	S	31	0:12 —1.0	6:34 6.3	12:53 —0.7	18:54 5.4	

FEBRUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
○ P	M	1	1:04 —1.1	7:28 6.5	13:42 —1.0	19:45 5.6	
	Tu	2	1:56 —1.2	8:16 6.5	14:32 —1.1	20:38 5.8	
	W	3	2:47 —1.2	9:06 6.4	15:20 —1.1	21:30 5.8	
E	Th	4	3:40 —1.1	9:55 6.2	16:10 —1.0	22:22 5.8	
	F	5	4:32 —0.8	10:45 5.8	17:00 —0.9	23:18 5.7	
	S	6	5:27 —0.5	11:39 5.5	17:55 —0.7	. . .	
	S	7	0:14 5.6	6:24 —0.2	12:34 5.1	18:48 —0.5	
☾	M	8	1:15 5.4	7:25 0.1	13:36 4.8	19:44 —0.3	
	Tu	9	2:16 5.2	8:28 0.4	14:38 4.5	20:42 —0.1	
	W	10	3:18 5.2	9:31 0.5	15:42 4.4	21:42 —0.1	
S	Th	11	4:16 5.2	10:30 0.5	16:45 4.4	22:37 0.0	
	F	12	5:10 5.2	11:25 0.5	17:37 4.5	23:27 —0.1	
	S	13	5:57 5.3	12:10 0.4	18:25 4.6	. . .	
	S	14	0:14 —0.1	6:41 5.3	12:51 0.2	19:05 4.6	
A	M	15	0:57 —0.1	7:17 5.3	13:28 0.1	19:40 4.6	
●	Tu	16	1:34 —0.1	7:52 5.3	14:04 0.0	20:11 4.7	
	W	17	2:11 —0.1	8:24 5.2	14:38 —0.1	20:42 4.8	
	Th	18	2:47 0.0	8:57 5.2	15:12 —0.1	21:15 4.9	
E	F	19	3:23 0.0	9:30 5.1	15:48 —0.1	21:52 5.0	
	S	20	4:05 0.1	10:13 5.0	16:26 —0.1	22:32 5.1	
	S	21	4:47 0.1	10:43 4.9	17:09 0.0	23:20 5.2	
	M	22	5:36 0.2	11:27 4.8	17:56 0.0	. . .	
	Tu	23	0:12 5.2	6:31 0.3	12:19 4.6	18:50 0.1	
☽	W	24	1:10 5.2	7:30 0.3	13:18 4.5	19:51 0.0	
	Th	25	2:15 5.2	8:35 0.3	14:27 4.5	20:54 —0.1	
N	F	26	3:20 5.4	9:39 0.1	15:38 4.6	21:56 —0.4	
	S	27	4:21 5.6	10:38 —0.1	16:45 4.9	22:56 —0.6	
	S	28	5:20 5.9	11.36 —0.4	17:44 5.3	23:54 —0.9	
	M	29	6:18 6.1	12:30 —0.7	18:37 5.6	. . .	

MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	0:48 —1.1	7:07 6.3	13:20 —1.0	19:30 5.9	
	W	2	1:40 —1.3	7:56 6.3	14:08 —1.2	20:22 6.1	
E	Th	3	2:31 —1.3	8:46 6.2	14:56 —1.2	21:10 6.1	
	F	4	3:22 —1.1	9:34 6.0	15:45 —1.1	22:00 6.1	
	S	5	4:11 —0.9	10:24 5.7	16:34 —0.9	22:52 5.9	
	S	6	5:02 —0.5	11:12 5.3	17:24 —0.6	23:47 5.7	
	M	7	6:00 —0.2	12:09 4.9	18:19 —0.3	. . .	
☾	Tu	8	0:44 5.4	6:56 0.2	13:07 4.6	19:15 —0.1	
S	W	9	1:43 5.2	7:56 0.4	14:12 4.4	20:12 0.1	
	Th	10	2:40 5.0	8:59 0.6	15:15 4.2	21:11 0.2	
	F	11	3:44 4.9	9:56 0.6	16:16 4.3	22:08 0.2	
	S	12	4:37 4.9	10:50 0.5	17:08 4.4	23:00 0.2	
	S	13	5:27 5.0	11:36 0.4	17:56 4.5	23:47 0.1	
A	M	14	6:07 5.0	12:15 0.2	18:33 4.7	. . .	
	Tu	15	0:30 0.0	6:46 5.1	12:55 0.0	19:07 4.8	
	W	16	1:08 —0.1	7:23 5.1	13:31 —0.1	19:42 5.0	
● E	Th	17	1:46 —0.1	7:53 5.1	14:05 —0.2	20:12 5.2	
	F	18	2:24 —0.2	8:26 5.2	14:40 —0.2	20:47 5.3	
	S	19	3:00 —0.2	9:01 5.1	15:17 —0.3	21:25 5.4	
	S	20	3:41 —0.2	9:36 5.0	15:55 —0.2	22:08 5.5	
	M	21	4:26 —0.1	10:17 4.9	16:39 —0.1	22:55 5.4	
	Tu	22	5:14 0.0	11:03 4.8	17:30 0.0	23:47 5.4	
	W	23	6:08 0.1	11:58 4.6	18:24 0.0	. . .	
N ☽	Th	24	0:44 5.3	7:08 0.2	13:00 4.5	19:26 0.1	
	F	25	1:50 5.2	8:13 0.2	14:10 4.5	20:32 0.0	
	S	26	2:57 5.3	9:15 0.1	15:22 4.7	21:39 —0.2	
	S	27	4:00 5.5	10:17 —0.2	16:27 5.0	22:40 —0.5	
	M	28	5:02 5.7	11:15 —0.5	17:27 5.4	23:40 —0.8	
P	Tu	29	5:56 5.8	12:07 —0.8	18:22 5.8	. . .	
E	W	30	0:32 —1.0	6:50 6.0	12:57 —1.0	19:14 6.1	
○	Th	31	1:23 —1.1	7:37 6.0	13:47 —1.2	20:02 6.3	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day: a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:12	8:25	14:32	20:49		S	1	2:44	8:52	14:54	21:16		W	1	3:52	10:00	16:00	22:20
			—1.1	5.9	—1.2	6.3				—0.7	5.3	—0.9	6.2				—0.1	4.6	—0.1	4.5
	S	2	3:02	9:14	15:19	21:37		M	2	3:30	9:40	15:40	22:00		Th	2	4:35	10:42	16:43	23:04
			—1.0	5.7	—1.0	6.2				—0.5	5.1	—0.6	5.9				0.0	4.4	0.2	5.1
	S	3	3:50	10:00	16:04	22:25	S	Tu	3	4:16	10:24	16:26	22:47		F	3	5:20	11:28	17:30	23:44
			—0.7	5.4	—0.8	6.0				—0.3	4.8	—0.3	5.6				0.2	4.3	0.4	4.9
	M	4	4:39	10:48	16:56	23:18		W	4	5:05	11:12	17:15	23:36		S	4	6:07	12:17	18:18	. . .
			—0.4	5.1	—0.5	5.7				0.0	4.5	0.0	5.2				0.3	4.2	0.7	. . .
	Tu	5	5:31	11:42	17:46	. . .		Th	5	5:55	12:05	18:06	. . .	A	S	5	0:30	6:54	13:09	19:10
			—0.1	4.7	—0.1	. . .				0.2	4.3	0.4	. . .				4.6	0.4	4.2	0.8
S	W	6	0:12	6:25	12:37	18:42		F	6	0:27	6:46	13:00	19:00	☾	M	6	1:17	7:45	14:00	20:05
			5.3	—0.2	4.4	0.2				4.9	0.4	4.2	0.6				4.5	0.4	4.3	0.8
☾	Th	7	1:07	7:22	13:40	19:39	☾	S	7	1:19	7:38	13:57	19:54	E	Tu	7	2:10	8:32	14:53	20:58
			5.0	0.4	4.2	0.4				4.7	0.5	4.1	0.7				4.4	0.3	4.5	0.7
	F	8	2:04	8:18	14:40	20:36	A	S	8	2:12	8:31	14:54	20:50		W	8	3:04	9:23	15:46	21:52
			4.8	0.6	4.1	0.5				4.5	0.5	4.2	0.7				4.4	0.1	4.8	0.5
	S	9	3:02	9:16	15:40	21:32		M	9	3:06	9:22	15:46	21:46		Th	9	3:54	10:10	16:35	22:46
			4.7	0.6	4.2	0.5				4.5	0.4	4.4	0.6				4.4	0.0	5.2	0.3
A	S	10	3:56	10:07	16:32	22:24		Tu	10	3:57	10:10	16:32	22:33		F	10	4:44	11:00	17:20	23:35
			4.6	0.5	4.4	0.5				4.5	0.2	4.7	0.4				4.6	—0.3	5.5	0.0
	M	11	4:46	10:56	17:16	23:12	E	W	11	4:44	10:55	17:15	23:20		S	11	5:34	11:46	18:10	. . .
			4.7	0.3	4.6	0.3				4.6	0.0	5.0	0.2				4.7	—0.5	5.8	. . .
	Tu	12	5:31	11:37	17:55	23:56		Th	12	5:30	11:38	17:57	. . .		S	12	0:25	6:21	12:32	18:56
			4.8	0.1	4.8	0.1				4.7	—0.2	5.4	. . .				—0.2	4.9	—0.6	6.1
E	W	13	6:12	12:16	18:32	. . .		F	13	0:07	6:11	12:20	18:37	●	M	13	1:11	7:07	13:20	19:41
			4.9	—0.1	5.1	. . .				0.0	4.8	—0.4	5.6				—0.5	5.0	—0.8	6.2
	Th	14	0:37	6:50	12:57	19:07		S	14	0:50	6:50	13:00	19:18	N	Tu	14	2:00	7:55	14:05	20:26
			0.0	5.0	—0.2	5.4				—0.3	4.9	—0.5	5.9				—0.6	5.1	—0.8	6.3
●	F	15	1:18	7:22	13:32	19:44	●	S	15	1:35	7:30	13:42	20:02		W	15	2:47	8:42	14:54	21:15
			—0.2	5.0	—0.4	5.6				—0.4	5.0	—0.6	6.0				—0.7	5.1	—0.8	6.3
	S	16	2:00	8:00	14:10	20:22		M	16	2:20	8:12	14:25	20:45		Th	16	3:35	9:34	15:45	22:04
			—0.4	5.1	—0.4	5.7				—0.5	5.0	—0.6	6.1				—0.7	5.2	—0.7	6.1
	S	17	2:40	8:35	14:48	21:05	N	Tu	17	3:04	8:57	15:11	21:30	P	F	17	4:23	10:27	16:36	22:55
			—0.4	5.1	—0.4	5.8				—0.5	5.0	—0.5	6.0				—0.6	5.2	—0.5	5.8
	M	18	3:22	9:14	15:30	21:46		W	18	3:52	9:42	15:59	22:20		S	18	5:16	11:25	17:35	23:52
			—0.4	5.0	—0.4	5.8				—0.5	5.0	—0.4	6.9				—0.6	5.1	—0.3	5.6
	Tu	19	4:07	10:00	16:16	22:34		Th	19	4:41	10:38	16:52	23:12		S	19	6:12	12:25	18:35	. . .
			—0.3	4.9	—0.2	5.7				—0.4	4.9	—0.3	5.7				—0.5	5.1	—0.2	. . .
N	W	20	4:57	10:47	17:07	23:26		F	20	5:36	11:36	17:48	. . .	☽ E	M	20	0:49	7:10	13:27	19:40
			—0.2	4.8	—0.1	5.5				—0.3	4.8	—0.1	. . .				5.3	—0.4	5.2	0.0
	Th	21	5:52	11:43	18:05	. . .		S	21	0:08	6:32	12:40	18:52		Tu	21	1:52	8:07	14:33	20:42
			—0.1	4.7	0.0	. . .				5.5	—0.2	4.8	0.0				5.1	—0.4	5.3	0.0
☽	F	22	0:24	6:52	12:48	19:08	☽ P	S	22	1:08	7:31	13:46	19:57		W	22	2:55	9:05	15:35	21:47
			5.4	0.0	4.6	0.0				5.2	—0.2	4.9	0.0				4.9	—0.4	5.4	0.1
	S	23	1:29	7:52	14:00	20:15		M	23	2:13	8:33	14:52	21:00		Th	23	4:00	10:05	16:35	22:47
			5.2	0.0	4.7	0.0				5.1	—0.2	5.1	0.0				4.9	—0.5	5.6	0.0
	S	24	2:34	8:55	15:07	21:19	E	Tu	24	3:17	9:32	15:55	22:07		F	24	5:00	11:00	17:30	23:44
			5.2	—0.1	4.9	—0.1				5.1	—0.4	5.4	—0.2				4.9	—0.6	5.8	0.0
	M	25	3:38	9:55	16:12	22:25		W	25	4:18	10:22	16:52	23:05		S	25	5:54	11:52	18:21	. . .
			5.2	—0.3	5.2	—0.3				5.1	—0.6	5.7	—0.3				4.9	—0.7	5.9	. . .
P	Tu	26	4.40	10:50	17:10	23:22		Th	26	5:17	11:22	17:42	. . .		S	26	0:36	6:45	12:40	19:08
			5.4	—0.5	5.6	—0.6				5.2	—0.8	6.0	. . .				—0.1	4.9	—0.7	6.0
E	W	27	5:36	11:44	18:05	. . .		F	27	0:00	6:11	12:12	18:37	S ○	M	27	1:22	7:32	13:27	19:50
			5.5	—0.8	6.0	. . .				—0.4	5.2	—0.9	6.2				—0.1	4.9	—0.6	5.9
	Th	28	0:16	6:30	12:33	18:54		S	28	0:51	7:02	13:00	19:25		Tu	28	2:05	8:16	14:08	20:32
			—0.8	5.6	—1.0	6.2				—0.4	5.2	—0.9	6.2				—0.1	4.8	—0.5	5.8
○	F	29	1:07	7:19	13:23	19:42	○	S	29	1:40	7:47	13:46	20:10		W	29	2:45	8:55	14:50	21:12
			—0.9	5.6	—1.1	6.3				—0.5	5.1	—0.9	6.2				—0.1	4.7	—0.3	5.6
	S	30	1:55	8:06	14:08	20:32	S	M	30	2:25	8:33	14:32	20:55		Th	30	3:25	9:35	15:30	21:48
			—0.8	5.5	—1.1	6.3				—0.4	5.0	—0.7	6.0				—0.1	4.6	0.0	5.3
								Tu	31	3:09	9:17	15:16	21:36							
										—0.3	4.8	—0.5	5.7							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:05 0.0	10:12 4.5	16:12 0.2	22:24 5.1	
	S	2	4:45 0.1	10:50 4.4	16:53 0.4	23:00 4.9	
A	S	3	5:25 0.2	11:32 4.4	17:37 0.6	23:42 4.7	
E	M	4	6:10 0.2	12:20 4.5	18:25 0.7	. . . . . .	
☾	Tu	5	0:24 4.5	6:57 0.2	13:09 4.5	19:07 0.7	
	W	6	1:12 4.4	7:46 0.2	14:04 4.7	20:15 0.7	
	Th	7	2:06 4.4	8:37 0.1	15:00 5.0	21:12 0.5	
	F	8	3:05 4.4	9:31 —0.1	15:56 5.2	22:11 0.3	
	S	9	4:04 4.5	10:25 —0.3	16:50 5.6	23:06 0.0	
	S	10	5:01 4.7	11:17 —0.5	17:42 5.9	. . . . . .	
N	M	11	0:00 —0.2	5:56 4.9	12:10 —0.7	18:32 6.2	
	Tu	12	0:50 —0.5	6:47 5.1	12:58 —0.9	19:20 6.3	
●	W	13	1:40 —0.7	7:38 5.3	13:48 —1.0	20:10 6.4	
P	Th	14	2:27 —0.8	8:28 5.4	14:39 —1.0	20:58 6.4	
	F	15	3:15 —0.9	9:18 5.5	15:30 —1.0	21:48 6.2	
	S	16	4:05 —0.9	10:12 5.5	16:22 —0.7	22:38 6.0	
E	S	17	4:55 —0.8	11:07 5.5	17:17 —0.5	23:30 5.6	
	M	18	5:52 —0.7	12:05 5.5	18:17 —0.3	. . . . . .	
☽	Tu	19	0:27 5.3	6:45 —0.5	13:07 5.4	19:17 —0.1	
	W	20	1:27 5.0	7:42 —0.4	14:10 5.3	20:22 0.1	
	Th	21	2:30 4.8	8:41 —0.4	15:12 5.4	21:27 0.3	
	F	22	3:37 4.7	9:40 —0.4	16:14 5.5	22:30 0.3	
	S	23	4:40 4.7	10:38 —0.4	17:12 5.6	23:27 0.2	
S	S	24	5:40 4.7	11:30 —0.4	18:02 5.7	. . . . . .	
	M	25	0:17 0.2	6:28 4.8	12:20 —0.4	18:48 5.7	
	Tu	26	1:03 0.1	7:14 4.8	13:05 —0.4	19:30 5.7	
○	W	27	1:44 0.0	7:55 4.7	13:47 —0.3	20:09 5.5	
	Th	28	2:22 0.0	8:33 4.7	14:27 —0.2	20:44 5.4	
	F	29	2:57 0.0	9:06 4.7	15:04 0.0	21:18 5.2	
A	S	30	3:32 0.0	9:37 4.7	15:42 0.1	21:50 5.1	
	S	31	4:09 0.0	10:12 4.7	16:19 0.3	22:25 4.9	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	4:47 0.1	10:52 4.7	17:00 0.4	23:00 4.8	
	Tu	2	5:27 0.1	11:34 4.8	17:47 0.5	23:40 4.7	
	W	3	6:13 0.1	12:24 4.8	18:38 0.5	. . . . . .	
☾	Th	4	0:30 4.5	7:03 0.2	13:20 4.9	19:34 0.5	
	F	5	1:20 4.4	7:57 0.1	14:18 5.1	20:35 0.4	
	S	6	2:25 4.4	8:55 0.0	15:20 5.3	21:36 0.3	
	S	7	3:30 4.5	9:54 —0.2	16:20 5.5	22:37 0.1	
N	M	8	4:34 4.7	10:52 —0.5	17:17 5.8	23:32 —0.2	
	Tu	9	5:35 5.0	11:47 —0.8	18:10 6.1	. . . . . .	
	W	10	0:25 —0.5	6:28 5.3	12:40 —1.0	19:02 6.3	
●	Th	11	1:16 —0.8	7:20 5.6	13:32 —1.2	19:51 6.4	
P	F	12	2:06 —1.0	8:12 5.8	14:22 —1.2	20:40 6.4	
	S	13	2:53 —1.1	9:02 5.9	15:13 —1.2	21:29 6.2	
E	S	14	3:43 —1.1	9:53 5.9	16:05 —1.0	22:17 6.0	
	M	15	4:31 —1.0	10:47 5.9	17:00 —0.7	23:10 5.6	
	Tu	16	5:23 —0.8	11:42 5.7	17:55 —0.4	. . . . . .	
☽	W	17	0:05 5.2	6:18 —0.6	12:42 5.5	18:52 —0.1	
	Th	18	1:08 4.9	7:15 —0.4	13:45 5.4	19:58 0.2	
	F	19	2:10 4.6	8:14 —0.2	14:48 5.3	21:03 0.4	
S	S	20	3:15 4.5	9:17 —0.1	15:50 5.2	22:05 0.5	
	S	21	4:20 4.5	10:12 —0.1	16:48 5.3	23:02 0.4	
	M	22	5:20 4.6	11:10 —0.1	17:40 5.3	23:53 0.3	
	Tu	23	6:07 4.7	11:58 —0.1	18:26 5.3	. . . . . .	
	W	24	0:37 0.2	6:52 4.7	12:45 —0.2	19:06 5.3	
○	Th	25	1:16 0.1	7:30 4.8	13:25 —0.1	19:43 5.3	
A	F	26	1:52 0.0	8:05 4.8	14:00 —0.1	20:16 5.2	
	S	27	2:25 —0.1	8:34 4.9	14:38 0.0	20:46 5.1	
E	S	28	3:00 —0.1	9:05 4.9	15:12 0.0	21:17 5.0	
	M	29	3:34 —0.1	9:38 5.0	15:50 0.1	21:49 4.9	
	Tu	30	4:10 0.0	10:16 5.1	16:30 0.2	22:25 4.8	
	W	31	4:50 0.0	11:00 5.1	17:16 0.2	23:05 4.7	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	5:32 0.1	11:48 5.1	18:06 0.3	23:55 4.6	
☾	F	2	6:25 0.1	12:44 5.1	19:05 0.4	. . . . . .	
	S	3	0:52 4.5	7:22 0.1	13:45 5.1	20:06 0.4	
N	S	4	1:54 4.4	8:24 0.0	14:50 5.2	21:09 0.2	
	M	5	3:07 4.5	9:28 —0.1	15:50 5.4	22:10 0.0	
	Tu	6	4:12 4.8	10:30 —0.4	16:52 5.7	23:10 —0.3	
	W	7	5:16 5.1	11:27 —0.8	17:50 6.0	. . . . . .	
	Th	8	0:04 —0.6	6:10 5.5	12:22 —1.0	18:42 6.2	
P ●	F	9	0:54 —0.9	7:08 5.9	13:15 —1.2	19:32 6.2	
E	S	10	1:42 —1.1	7:54 6.1	14:06 —1.3	20:20 6.2	
	S	11	2:30 —1.2	8:43 6.3	14:56 —1.2	21:07 6.1	
	M	12	3:18 —1.2	9:34 6.2	15:47 —1.0	21:56 5.8	
	Tu	13	4:06 —1.1	10:25 6.1	16:40 —0.7	22:50 5.5	
	W	14	4:57 —0.8	11:18 5.9	17:32 —0.4	23:42 5.1	
	Th	15	5:52 —0.5	12:17 5.6	18:23 0.0	. . . . . .	
☽	F	16	0:40 4.7	6:47 —0.2	13:16 5.8	19:31 0.2	
S	S	17	1:45 4.5	7:50 0.0	14:17 5.1	20:32 0.4	
	S	18	2:50 4.4	8:50 0.1	15:20 5.0	21:34 0.5	
	M	19	3:55 4.4	9:49 0.2	16:20 5.0	22:30 0.5	
	Tu	20	4:50 4.5	10:42 0.2	17:10 5.0	23:20 0.3	
	W	21	5:40 4.6	11:34 0.1	17:57 5.0	. . . . . .	
	Th	22	0:02 0.1	6:20 4.8	12:18 0.0	18:36 5.0	
A	F	23	0:40 0.0	6:48 4.9	13:00 0.0	19:12 5.0	
○ E	S	24	1:17 —0.1	7:30 5.0	13:30 —0.1	19:45 5.0	
	S	25	1:52 —0.2	8:02 5.1	14:12 —0.1	20:17 5.0	
	M	26	2:25 —0.2	8:35 5.3	14:48 —0.1	20:46 5.0	
	Tu	27	3:00 —0.2	9:10 5.4	15:25 —0.1	21:20 4.9	
	W	28	3:36 —0.1	9:48 5.4	16:08 —0.1	21:58 4.8	
	Th	29	4:17 —0.1	10:30 5.4	16:52 0.0	22:40 4.7	
	F	30	5:02 0.0	11:20 5.3	17:44 0.1	23:30 4.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	5:54 0.1	12:14 5.2	18:38 0.2	. . .	
☾	S	2	0:28 4.5	6:55 0.2	13:15 5.2	19:40 0.2	
	M	3	1:35 4.5	8:00 0.1	14:20 5.2	20:42 0.1	
	Tu	4	2:47 4.6	9:05 —0.1	15:27 5.3	21:46 —0.1	
	W	5	3:55 4.9	10:10 —0.4	16:29 5.5	22:44 —0.4	
	Th	6	4:56 5.3	11:10 —0.5	17:22 5.7	23:37 —0.7	
	F	7	5:54 5.8	12:06 —0.9	18:20 5.8	. . .	
P E	S	8	0:30 —1.0	6:46 6.1	13:00 —1.1	19:10 5.9	
●	S	9	1:20 —1.2	7:35 6.4	13:49 —1.2	19:59 5.9	
	M	10	2:07 —1.3	8:24 6.5	14:37 —1.1	20:48 5.8	
	Tu	11	2:55 —1.2	9:13 6.4	15:27 —0.9	21:36 5.6	
	W	12	3:42 —1.1	10:02 6.2	16:17 —0.7	22:25 5.2	
	Th	13	4:32 —0.7	10:54 5.9	17:09 —0.3	23:18 4.9	
S	F	14	5:25 —0.4	11:47 5.6	18:05 0.0	. . .	
	S	15	0:17 4.5	6:20 —0.1	12:45 5.3	19:00 0.2	
☽	S	16	1:18 4.4	7:17 0.2	13:42 5.0	20:00 0.4	
	M	17	2:20 4.3	8:15 0.4	14:42 4.8	20:56 0.5	
	Tu	18	3:22 4.3	9:15 0.5	15:40 4.7	21:50 0.4	
	W	19	4:17 4.5	10:10 0.5	16:30 4.7	22:35 0.3	
A	Th	20	5:04 4.7	11:00 0.4	17:17 4.7	23:22 0.1	
E	F	21	5:47 4.9	11:46 0.2	17:57 4.8	. . .	
	S	22	0:04 0.0	6:23 5.1	12:26 0.1	18:38 4.8	
	S	23	0:40 —0.2	6:57 5.3	13:04 —0.1	19:10 4.9	
○	M	24	1:17 —0.2	7:32 5.5	13:43 —0.2	19:42 4.9	
	Tu	25	1:58 —0.3	8:07 5.6	14:22 —0.3	20:18 4.9	
	W	26	2:30 —0.3	8:45 5.7	15:04 —0.3	20:54 4.9	
	Th	27	3:09 —0.3	9:27 5.7	15:47 —0.2	21:35 4.8	
	F	28	3:43 —0.2	10:10 5.7	16:33 —0.2	22:20 4.8	
N	S	29	4:40 0.0	11:00 5.5	17:24 —0.2	23:10 4.7	
	S	30	5:35 0.0	11:53 5.4	18:20 0.0	. . .	
☾	M	31	0:15 4.5	6:34 0.1	12:55 5.2	19:20 0.0	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	1:23 4.6	7:38 0.1	13:57 5.1	20:22 0.0	
	W	2	2:30 4.8	8:47 0.0	15:02 5.1	21:21 —0.2	
	Th	3	3:40 5.1	9:50 —0.2	16:04 5.2	22:20 —0.5	
E	F	4	4:38 5.5	10:51 —0.4	17:05 5.4	23:14 —0.8	
P	S	5	5:35 5.9	11:47 —0.7	17:58 5.5	. . .	
	S	6	0:06 —1.0	6:26 6.2	12:42 —0.8	18:51 5.6	
●	M	7	0:55 —1.1	7:17 6.5	13:34 —0.9	19:42 5.6	
	Tu	8	1:45 —1.2	8:08 6.5	14:35 —0.8	20:30 5.5	
	W	9	2:32 —1.1	9:00 6.4	15:10 —0.6	21:17 5.3	
S	Th	10	3:19 —0.9	9:42 6.2	15:57 —0.5	22:07 5.0	
	F	11	4:07 —0.6	10:30 5.8	16:46 —0.3	22:57 4.8	
	S	12	4:57 —0.2	11:20 5.5	17:36 0.0	23:50 4.6	
	S	13	5:50 0.1	12:12 5.1	18:28 0.2	. . .	
☽	M	14	0:46 4.4	6:42 0.4	13:04 4.8	19:21 0.3	
	Tu	15	1:42 4.3	7:40 0.6	13:57 4.6	20:14 0.4	
	W	16	2:40 4.3	8:37 0.7	14:51 4.5	21:05 0.3	
A	Th	17	3:35 4.5	9:30 0.7	15:45 4.5	21:54 0.2	
E	F	18	4:21 4.7	10:20 0.6	16:30 4.5	22:41 0.1	
	S	19	5:05 4.9	11:08 0.4	17:15 4.5	23:24 —0.1	
	S	20	5:45 5.2	11:53 0.2	17:57 4.6	. . .	
	M	21	0:04 —0.2	6:25 5.5	12:37 0.0	18:37 4.7	
○	Tu	22	0:47 —0.4	7:05 5.7	13:19 —0.2	19:15 4.8	
	W	23	1:25 —0.5	7:44 5.9	14:00 —0.3	19:53 4.9	
	Th	24	2:05 —0.5	8:25 6.0	14:45 —0.4	20:35 4.9	
N	F	25	2:48 —0.4	9:10 6.0	15:29 —0.4	21:20 4.9	
	S	26	3:35 —0.4	9:54 5.9	16:17 —0.4	22:10 4.9	
	S	27	4:25 —0.2	10:45 5.7	17:18 —0.3	23:03 4.8	
	M	28	5:21 —0.1	11:36 5.5	18:02 —0.2	. . .	
	Tu	29	0:05 4.8	6:18 0.0	12:35 5.3	19:00 —0.2	
☾	W	30	1:09 4.9	7:22 0.0	13:37 5.1	19:58 —0.2	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	2:16 5.0	8:28 0.0	14:42 5.0	20:58 —0.4	
P	F	2	3:20 5.3	9:31 —0.1	15:42 5.0	21:55 —0.5	
	S	3	4:22 5.6	10:35 —0.2	16:45 5.1	22:52 —0.7	
	S	4	5:18 5.9	11:33 —0.3	17:42 5.2	23:44 —0.9	
	M	5	6:11 6.2	12:26 —0.4	18:35 5.2	. . .	
●	Tu	6	0:35 —0.9	7:00 6.2	13:16 —0.5	19:26 5.2	
	W	7	1:23 —1.0	7:48 6.3	14:04 —0.5	20:15 5.2	
S	Th	8	2:12 —0.9	8:37 6.2	14:50 —0.4	21:00 5.0	
	F	9	2:57 —0.7	9:20 6.0	15:37 —0.3	21:45 4.9	
	S	10	3:42 —0.4	10:05 5.7	16:20 —0.2	22:34 4.7	
	S	11	4:28 —0.1	10:48 5.4	17:07 0.0	23:17 4.5	
	M	12	5:16 —0.2	11:34 5.0	17:52 0.1	. . .	
	Tu	13	0:07 4.4	6:05 0.5	12:18 4.8	18:40 0.2	
☽ A	W	14	1:00 4.3	6:57 0.7	13:07 4.5	19:29 0.3	
E	Th	15	1:49 4.4	7:50 0.8	13:56 4.4	20:17 0.3	
	F	16	2:40 4.5	8:44 0.8	14:47 4.3	21:07 0.2	
	S	17	3:32 4.7	9:31 0.7	15:37 4.3	21:55 0.1	
	S	18	4:20 5.0	10:30 0.6	16:28 4.4	22:42 —0.1	
	M	19	5:07 5.3	11:20 0.3	17:17 4.5	23:29 —0.3	
	Tu	20	5:52 5.6	12:07 0.0	18:04 4.7	. . .	
	W	21	0:04 —0.5	6:37 5.9	12:54 —0.2	18:50 4.8	
○ N	Th	22	1:00 —0.6	7:22 6.1	13:40 —0.4	19:35 4.9	
	F	23	1:45 —0.7	8:07 6.2	14:25 —0.5	20:20 5.0	
	S	24	2:32 —0.7	8:52 6.2	15:12 —0.6	21:07 5.1	
	S	25	3:20 —0.7	9:40 6.1	16:00 —0.6	21:58 5.2	
	M	26	4:10 —0.5	10:29 5.9	16:50 —0.6	22:52 5.2	
P	Tu	27	5:05 —0.4	11:20 5.6	17:43 —0.5	23:51 5.2	
	W	28	6:03 —0.2	12:15 5.4	18:38 —0.4	. . .	
E ☾	Th	29	0:53 5.2	7:04 0.0	13:14 5.1	19:34 —0.4	
	F	30	1:57 5.2	8:08 0.0	14:17 4.9	20:33 —0.4	
	S	31	3:00 5.4	9:14 0.1	15:21 4.8	21:34 —0.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:55	12:22	18:18	. . .	○	M	1	1:04	7:18	13:42	19:43	P	Tu	1	0:50	7:00	13:21	19:25	P	Tu	1	0:50	7:00	13:21	19:25
			7.8	−0.5	6.8	. . .	P			−1.2	8.3	−1.1	7.4				−1.3	8.2	−1.2	7.8	○			−1.3	8.2	−1.2	7.8
N	S	2	0:32	6:47	13:12	19:08		Tu	2	1:56	8:08	14:32	20:35		W	2	1:42	7:50	14:09	20:15		W	2	1:42	7:50	14:09	20:15
			−0.8	8.2	−0.8	7.0				−1.3	8.4	−1.1	7.7				−1.5	8.3	−1.3	8.0				−1.5	8.3	−1.3	8.0
○	S	3	1:20	7:36	14:00	20:00		W	3	2:47	8:58	15:18	21:24	E	Th	3	2:32	8:38	14:55	21:03	E	Th	3	2:32	8:38	14:55	21:03
			−1.0	8.3	−1.0	7.2				−1.3	8.3	−1.3	7.7				−1.5	8.2	−1.4	8.1				−1.5	8.2	−1.4	8.1
P	M	4	2:12	8:25	14:49	20:50	E	Th	4	3:38	9:47	16:06	22:15		F	4	3:18	9:27	15:42	21:52		F	4	3:18	9:27	15:42	21:52
			−1.1	8.4	−1.1	7.3				−1.2	8.0	−1.2	7.7				−1.3	8.0	−1.2	8.0				−1.3	8.0	−1.2	8.0
	Tu	5	3:02	9:14	15:38	21:41		F	5	4:28	10:38	16:56	23:06		S	5	4:09	10:15	16:28	22:40		S	5	4:09	10:15	16:28	22:40
			−1.1	8.2	−1.0	7.3				−0.9	7.7	−0.9	7.5				−1.0	7.6	−1.0	7.7				−1.0	7.6	−1.0	7.7
	W	6	3:54	10:05	16:30	22:37		S	6	5:24	11:30	17:47	. . .		S	6	5:00	11:05	17:20	23:32		S	6	5:00	11:05	17:20	23:32
			−0.9	8.0	−1.0	7.3				−0.5	7.3	−0.7	. . .				−0.7	7.2	−0.6	7.4				−0.7	7.2	−0.6	7.4
	Th	7	4:47	10:57	17:21	23:30		S	7	0:02	6:20	12:26	18:42		M	7	5:54	11:56	18:10	. . .		M	7	5:54	11:56	18:10	. . .
			−0.6	7.6	−0.8	7.2				7.3	−0.2	6.8	−0.3				−0.2	6.6	−0.2	. . .				−0.2	6.6	−0.2	. . .
E	F	8	5:45	11:52	18:15	. . .	☾	M	8	0:56	7:20	13:24	19:39	☾	Tu	8	0:27	6:52	12:54	19:08	☾	Tu	8	0:27	6:52	12:54	19:08
			−0.3	7.2	−0.5	. . .				7.0	0.2	6.3	−0.1				7.0	0.3	6.2	0.2				7.0	0.3	6.2	0.2
☾	S	9	0:26	6:45	12:52	19:11		Tu	9	1:57	8:23	14:25	20:40	S	W	9	1:24	7:52	13:54	20:08	S	W	9	1:24	7:52	13:54	20:08
			7.0	−0.1	6.8	−0.3				6.8	0.5	6.0	−0.1				6.6	0.6	5.9	0.4				6.6	0.6	5.9	0.4
	S	10	1:25	7:48	13:54	20:09		W	10	2:57	9:27	15:27	21:37		Th	10	2:25	8:55	14:57	21:10		Th	10	2:25	8:55	14:57	21:10
			6.9	0.1	6.5	−0.2				6.7	0.6	5.9	0.2				6.4	0.8	5.7	0.5				6.4	0.8	5.7	0.5
	M	11	2:26	8:52	14:54	21:07	S	Th	11	3:56	10:27	16:27	22:35		F	11	3:25	9:55	15:59	22:07		F	11	3:25	9:55	15:59	22:07
			6.9	0.3	6.3	−0.2				6.6	0.6	5.8	0.1				6.3	0.8	5.7	0.5				6.3	0.8	5.7	0.5
	Tu	12	3:27	9:54	15:55	22:05		F	12	4:51	11:20	17:21	23:27		S	12	4:20	10:50	16:55	23:02		S	12	4:20	10:50	16:55	23:02
			6.9	0.3	6.2	−0.2				6.7	0.5	5.9	0.1				6.3	0.7	5.8	0.4				6.3	0.7	5.8	0.4
	W	13	4:23	10:53	16:52	23:00		S	13	5:42	12:08	18:09	. . .		S	13	5:12	11:37	17:41	23:48		S	13	5:12	11:37	17:41	23:48
			7.0	0.3	6.2	−0.3				6.8	0.4	6.0	. . .				6.4	0.5	6.0	0.3				6.4	0.5	6.0	0.3
	Th	14	5:16	11:46	17:44	23:50		S	14	0:15	6:27	12:52	18:52	A	M	14	5:58	12:18	18:22	. . .	A	M	14	5:58	12:18	18:22	. . .
			7.1	0.2	6.2	−0.3				0.0	6.9	0.2	6.1				6.5	0.3	6.2	. . .				6.5	0.3	6.2	. . .
S	F	15	6:04	12:33	18:32	. . .	A	M	15	0:57	7:05	13:28	19:28		Tu	15	0:32	6:38	12:57	19:00		Tu	15	0:32	6:38	12:57	19:00
			7.2	0.1	6.2	. . .				0.0	6.9	0.1	6.2				0.2	6.7	0.1	6.4				0.2	6.7	0.1	6.4
	S	16	0:37	6:44	13:17	19:15	●	Tu	16	1:37	7:45	14:05	20:02		W	16	1:10	7:15	13:32	19:34		W	16	1:10	7:15	13:32	19:34
			0.3	7.3	0.1	6.2				0.0	6.9	0.0	6.3				0.1	6.7	0.0	6.7				0.1	6.7	0.0	6.7
●	S	17	1:20	7:30	13:55	19:55		W	17	2:12	8:17	14:37	20:37				1:46	7:50	14:06	20:07	●	Th	17	1:46	7:50	14:06	20:07
			−0.2	7.2	0.0	6.2				0.1	6.9	0.0	6.4		Th	17	0.0	6.8	0.0	6.8	E			0.0	6.8	0.0	6.8
	M	18	2:00	8:08	14:34	20:30		Th	18	2:47	8:52	15:10	21:12		F	18	2:22	8:25	14:40	20:42		F	18	2:22	8:25	14:40	20:42
			0.0	7.1	0.0	6.2				0.2	6.8	0.0	6.5				−0.1	6.9	−0.1	7.0				−0.1	6.9	−0.1	7.0
A	Tu	19	2:37	8:44	15:10	21:06	E	F	19	3:25	9:27	15:46	21:50		S	19	2:58	9:00	15:15	21:20		S	19	2:58	9:00	15:15	21:20
			0.2	7.0	0.1	6.2				0.2	6.8	0.0	6.6				−0.1	6.9	−0.1	7.0				−0.1	6.9	−0.1	7.0
	W	20	3:16	9:21	15:43	21:42		S	20	4:00	10:05	16:20	22:30		S	20	3:37	9:38	15:50	22:00		S	20	3:37	9:38	15:50	22:00
			0.3	6.8	0.1	6.2				0.2	6.6	0.1	6.7				−0.1	6.8	0.0	7.1				−0.1	6.8	0.0	7.1
	Th	21	3:52	9:58	16:20	22:20		S	21	4:42	10:47	17:02	23:14		M	21	4:20	10:19	16:32	22:46		M	21	4:20	10:19	16:32	22:46
			0.5	6.7	0.2	6.2				0.3	6.5	0.2	6.7				0.0	6.6	0.1	7.0				0.0	6.6	0.1	7.0
E	F	22	4:30	10:37	16:57	23:03		M	22	5:31	11:32	17:50	. . .		Tu	22	5:07	11:05	17:20	23:38		Tu	22	5:07	11:05	17:20	23:38
			0.6	6.5	0.3	6.2				0.4	6.3	0.3	. . .				0.1	6.4	0.2	6.9				0.1	6.4	0.2	6.9
	S	23	5:12	11:17	17:40	23:48		Tu	23	0:05	6:26	12:26	18:45		W	23	6:02	12:00	18:17	. . .		W	23	6:02	12:00	18:17	. . .
			0.7	6.3	0.3	6.3				6.7	0.5	6.1	0.3				0.3	6.2	0.3	. . .				0.3	6.2	0.3	. . .
	S	24	6:02	12:05	18:28	. . .	☽	W	24	1:02	7:27	13:25	19:47	N	Th	24	0:37	7:04	13:02	19:02	N	Th	24	0:37	7:04	13:02	19:02
			0.8	6.1	0.4	. . .				6.7	0.6	6.0	0.4	☽			6.8	0.4	6.0	0.4	☽			6.8	0.4	6.0	0.4
☽	M	25	0:40	6:58	13:00	19:22		Th	25	2:06	8:33	14:30	20:51		F	25	1:40	8:12	14:12	20:31		F	25	1:40	8:12	14:12	20:31
			6.4	0.8	6.0	0.4				6.7	0.5	6.0	0.2				6.7	0.5	6.0	0.3				6.7	0.5	6.0	0.3
	Tu	26	1:37	8:00	14:00	20:18	N	F	26	3:11	9:42	15:38	21:55		S	26	2:47	9:17	15:20	21:39		S	26	2:47	9:17	15:20	21:39
			6.5	0.7	6.0	0.3				6.9	0.3	6.1	−0.1				6.8	0.3	6.2	0.0				6.8	0.3	6.2	0.0
	W	27	2:38	9:04	14:59	21:20		S	27	4:15	10:42	16:42	22:58		S	27	3:52	10:20	16:24	22:42		S	27	3:52	10:20	16:24	22:42
			6.7	0.6	6.0	−0.1				7.2	0.0	6.5	−0.5				7.0	−0.1	6.7	−0.4				7.0	−0.1	6.7	−0.4
	Th	28	3:38	10:06	16:00	22:20		S	28	5:15	11:40	17:40	23:55		M	28	4:54	11:17	17:22	23:40		M	28	4:54	11:17	17:22	23:40
			7.0	0.3	6.2	−0.2				7.6	−0.5	7.0	−0.9				7.3	−0.5	7.2	−0.9				7.3	−0.5	7.2	−0.9
N	F	29	4:37	11:06	17:02	23:17		M	29	6:09	12:32	18:35	. . .								P	Tu	29	5:50	12:10	18:17	. . .
			7.4	0.0	6.4	−0.5				7.9	−0.9	7.4	. . .											7.7	−0.9	7.7	. . .
	S	30	5:35	12:01	18:00	. . .															E	W	30	0:34	6:42	13:01	19:06
			7.8	−0.4	6.8	. . .																		−1.2	7.9	−1.2	8.0
	S	31	0:12	6:24	12:52	18:52															○	Th	31	1:24	7:32	13:45	19:53
			−0.9	8.1	−0.7	7.2																		−1.4	8 0	−1.4	8.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	2:12	8:20	14:32	20:39
			—1.5	7.9	—1.4	8.2
	S	2	3:00	9:04	15:17	21:27
			—1.3	7.7	—1.2	8.1
	S	3	3:47	9:50	15:44	22:15
			—1.0	7.3	—0.9	7.8
	M	4	4:35	10:38	16:50	23:02
			—0.6	6.9	—0.4	7.3
	Tu	5	5:26	11:28	17:40	23:55
			—0.1	6.5	0.0	6.9
S	W	6	6:20	12:24	18:37	. . .
			—0.3	6.0	0.4	. . .
☾	Th	7	0:48	7:20	13:21	19:35
			6.5	0.7	5.7	0.7
	F	8	1:46	8:18	14:23	20:37
			6.1	0.8	5.6	0.9
	S	9	2:46	9:16	15:24	21:36
			6.0	0.8	5.6	0.9
A	S	10	3:42	10:10	16:17	22:30
			6.0	0.8	5.8	0.7
	M	11	4:37	10:57	17:06	23:17
			6.1	0.6	6.1	0.5
	Tu	12	5:24	11:40	17:42	. . .
			6.2	0.3	6.4	. . .
E	W	13	0:00	6:05	12:20	18:25
			0.3	6.5	0.2	6.6
	Th	14	0:40	6:43	12:56	19:04
			0.1	6.7	0.0	6.9
●	F	15	1:20	7:20	13:32	19:37
			0.1	6.8	—0.2	7.2
	S	16	1:57	7:56	14:08	20:15
			—0.3	6.8	—0.3	7.3
	S	17	2:36	8:33	14:45	20:55
			—0.4	6.8	—0.2	7.5
	M	18	3:16	9:13	15:27	21:38
			—0.4	6.8	—0.2	7.5
	Tu	19	4:02	10:00	16:08	22:26
			—0.3	6.6	0.0	7.3
N	W	20	4:52	10:47	17:00	23:20
			—0.1	6.4	0.1	7.1
	Th	21	5:44	11:44	17:57	. . .
			0.1	6.3	0.3	. . .
☽	F	22	0:16	6:45	12:47	19:03
			6.9	0.2	6.2	0.4
	S	23	1:19	7:50	13:55	20:13
			6.7	0.3	6.5	0.3
	S	24	2:25	8:55	15:02	21:20
			6.7	0.2	6.5	0.0
	M	25	3:30	9:55	16:05	22:24
			6.8	—0.1	6.9	—0.3
P	Tu	26	4:34	10:52	17:00	23:22
			7.1	—0.5	7.3	—0.7
E	W	27	5:30	11:45	17:55	. . .
			7.4	—0.9	7.8	. . .
	Th	28	0:17	6:22	12:37	18:44
			—0.1	7.6	—1.2	8.1
○	F	29	1:06	7:11	13:21	19:30
			—1.2	7.6	—1.3	8.3
	S	30	1:52	7:56	14:07	20:17
			—1.2	7.5	—1.2	8.2

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	MAY.					
	S	1	2:42	8:42	14:53	21:02
			—1.0	7.3	—1.0	8.0
	M	2	3:28	9:26	15:37	21:48
			—0.8	7.0	—0.6	7.7
S	Tu	3	4:12	10:12	16:23	22:34
			—0.4	6.6	—0.2	7.2
	W	4	5:00	11:06	17:11	23:21
			0.0	6.2	0.2	6.8
	Th	5	5:50	11:51	18:02	. . .
			0.3	5.9	0.7	. . .
	F	6	0:14	6:41	12:46	19:00
			6.3	0.6	5.7	1.0
☾	S	7	1:06	7:35	13:44	19:58
			6.0	0.8	5.6	1.1
A	S	8	2:02	8:30	14:41	20:56
			5.8	0.9	5.6	1.1
	M	9	3:00	9:24	15:32	21:50
			5.8	0.8	5.8	1.0
	Tu	10	3:54	10:12	16:21	22:40
			5.9	0.6	6.1	0.7
E	W	11	4:42	10:57	17:05	23:25
			6.0	0.3	6.5	0.4
	Th	12	5:26	11:40	17:43	. . .
			6.2	0.1	6.8	. . .
	F	13	0:09	6:07	12:20	18:28
			0.0	6.5	—0.1	7.2
	S	14	0:52	6:44	13:00	19.09
			—0.2	6.6	—0.3	7.5
●	S	15	1:33	7:30	13:40	19:52
			—0.4	6.7	—0.4	7.7
	M	16	2:16	8:10	14:22	20:35
			—0.6	6.8	—0.4	7.8
N	Tu	17	3:00	8:54	15:06	21:20
			—0.6	6.8	—0.3	7.8
	W	18	3:46	9:42	15:52	22:10
			—0.5	6.7	—0.2	7.6
	Th	19	4:35	10:33	16:46	23:02
			—0.3	6.6	0.0	7.3
	F	20	5:30	11:30	17:43	. . .
			—0.2	6.5	0.1	. . .
	S	21	0:00	6:27	12:33	18.48
			7.0	0.0	6.4	0.2
☽	S	22	1:00	7:27	13:37	19:55
P			6.8	0.0	6.5	0.2
	M	23	2:04	8:28	14:42	21:02
			6.7	0.0	6.7	0.1
E	Tu	24	3:10	9:30	15:42	22:06
			6.7	—0.2	7.0	—0.2
	W	25	4:12	10:28	16:40	23:05
			6.8	—0.5	7.4	—0.5
	Th	26	5:08	11:22	17:32	23:58
			7.0	—0.8	7.8	—0.7
	F	27	6:00	12:10	18:24	. . .
			7.0	—1.0	8.0	. . .
	S	28	0:50	6:50	13:00	19:10
			—0.8	7.0	—0.9	8.1
○	S	29	1:35	7:36	13:45	19:56
			—0.8	7.0	—1.0	8.0
S	M	30	2:21	8:20	14:28	20:40
			—0.7	6.9	—0.7	7.8
	Tu	31	3:04	9:04	15:13	21:22
			—0.5	6.7	—0.4	7.5

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	JUNE.					
	W	1	3:47	9:47	15:58	22:05
			—0.3	6.4	0.0	7.1
	Th	2	4:32	10:33	16:40	22:48
			0.0	6.1	0.4	6.7
	F	3	5:17	11:18	17:29	23:34
			0.3	5.9	0.8	6.3
	S	4	6:04	12:07	18:20	. . .
			0.5	5.7	1.0	. . .
A	S	5	0:24	6:52	13:00	19:12
			6.1	0.7	5.6	1.2
☾	M	6	1:14	7:42	13:52	20:09
			5.8	0.8	5.7	1.2
E	Tu	7	2:10	8:32	14:43	21:04
			5.7	0.7	5.9	1.1
	W	8	3:02	9:21	15:35	21:57
			5.7	0.6	6.3	0.8
	Th	9	3:54	10:12	16:24	22:50
			5.9	0.3	6.6	0.5
	F	10	4:45	11:00	17:13	23:37
			6.1	0.0	7.0	0.1
	S	11	5:33	11:46	18:00	. . .
			6.3	—0.2	7.4	. . .
	S	12	0:24	6:19	12:32	18:45
			—0.2	6.5	—0.4	7.8
●	M	13	1:10	7:07	13:17	19:31
			—0.5	6.7	—0.6	8.0
N	Tu	14	1:56	7:51	14:03	20:17
			—0.7	6.8	—0.7	8.1
	W	15	2:42	8:37	14:51	21:06
			—0.8	6.9	—0.7	8.0
	Th	16	3:29	9:29	15:42	21:54
			—0.7	6.9	—0.5	7.8
P	F	17	4:18	10:20	16:33	22:47
			—0.7	6.9	—0.4	7.5
	S	18	5:12	11:17	17:31	23:41
			—0.5	6.8	—0.2	7.2
	S	19	6:07	12:15	18:31	. . .
			—0.4	6.8	0.0	. . .
☽	M	20	0:40	7:04	13:15	19:37
E			6.9	—0.2	6.8	0.1
	Tu	21	1:44	8:04	14:17	20:42
			6.6	—0.2	6.9	0.1
	W	22	2:46	9:02	15:20	21:45
			6.5	—0.3	7.1	0.0
	Th	23	3:48	10:00	16:17	22:45
			6.5	—0.4	7.3	—0.1
	F	24	4:46	10:56	17:13	23:40
			6.5	—0.6	7.5	—0.2
	S	25	5:41	11:48	18:04	. . .
			6.5	—0.7	7.7	. . .
	S	26	0:31	6:31	12:36	18:52
			—0.3	6.6	—0.7	6.8
S	M	27	1:17	7:17	13:25	19:35
○			—0.3	6.6	—0.7	7.7
	Tu	28	2:01	8:00	14:07	20:17
			—0.3	6.5	—0.5	7.5
	W	29	2:42	8:42	14:48	20:58
			—0.3	6.4	—0.2	7.3
	Th	30	3:25	9:22	15:30	21:38
			—0.1	6.3	0.2	7.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							AUGUST.							SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:06	10:05	16:15	22:20	E	M	1	4:46	10:52	17:03	23:05		Th	1	5:30	11:43	18:04	. . .
			0.0	6.1	0.4	6.7				0.3	6.3	0.7	6.3				0.4	6.6	0.6	. . .
	S	2	4:46	10:46	16:57	23:02		Tu	2	5:25	11:34	17:41	23:48	☾	F	2	0:02	6:21	12:38	19:00
			0.2	6.0	0.6	6.4				0.4	6.3	0.8	6.1				6.1	0.5	6.6	0.7
A	S	3	5:25	11:30	17:40	23:45		W	3	6:10	12:21	18:38	. . .		S	3	1:00	7:20	13:39	20:06
			0.4	5.9	1.0	6.2				0.5	6.3	0.8	. . .				5.9	0.5	6.6	0.7
E	M	4	6:10	12:16	18:28	. . .	☾	Th	4	0:48	7:00	13:15	19:35	N	S	4	2:02	8:22	14:43	21:11
			0.5	5.9	1.1	. . .				6.0	0.5	6.4	0.9				5.8	0.4	6.7	0.5
☾	Tu	5	0:32	6:57	13:06	19:22		F	5	1:34	7:57	14:13	20:39		M	5	3:10	9:30	15:48	22:11
			6.0	0.6	6.0	1.1				5.8	0.5	6.5	0.8				6.0	0.2	7.0	0.2
	W	6	1:22	7:46	13:58	20:18		S	6	2:33	8:50	15:14	21:41		Tu	6	4:16	10:34	16:49	23:15
			5.8	0.6	6.2	1.0				5.8	0.4	6.7	0.6				6.3	—0.2	7.3	—0.2
	Th	7	2:15	8:40	14:53	21:19		S	7	3:31	9:56	16:15	22:44		W	7	5:16	11:32	17:45	. . .
			5.7	0.5	6.4	0.8				5.9	0.1	7.1	0.3				6.7	—0.7	7.7	. . .
	F	8	3:12	9:32	15:50	22:15	N	M	8	4:37	10:55	17:12	23:38		Th	8	0:09	6:12	12:27	18:38
			5.8	0.4	6.7	0.5				6.2	—0.2	7.5	—0.2				—0.7	7.2	—1.1	8.0
	S	9	4:08	10:27	16:45	23:10		Tu	9	5:36	11:51	18:06	. . .	P	F	9	0:59	7:05	13:19	19:28
			6.0	0.1	7.1	0.2				6.5	—0.6	7.8	. . .	●			—1.0	7.7	—1.4	8.2
	S	10	5:04	11:20	17:35	. . .		W	10	0:32	6:30	12:45	18:57	E	S	10	1:47	7:53	14:06	20:18
			6.2	0.2	7.5	. . .				—0.6	7.0	—1.0	8.1				—1.3	8.0	—1.5	8.2
N	M	11	0:02	5:57	12:11	18:27	●	Th	11	1:20	7:21	13:35	19:47		S	11	2:32	8:41	14:59	21:06
			—0.2	6.5	—0.5	7.9				—0.9	7.3	—1.2	8.3				—1.4	8.2	—1.5	8.1
	Tu	12	0:52	6:48	13:00	19:15	P	F	12	2:08	8:12	14:25	20:35		M	12	3:20	9:28	15:47	21:53
			—0.5	6.8	—0.8	8.1				—1.2	7.6	—1.3	8.3				—1.3	8.2	—1.3	7.8
●	W	13	1:40	7:37	13:50	20:04		S	13	2:55	9:01	15:15	21:24		Tu	13	4:07	10:18	16:38	22:42
			—0.8	7.0	—1.0	8.2				—1.3	7.8	—1.3	8.1				—1.2	8.0	—0.9	7.4
P	Th	14	2:28	8:28	14:42	20:53	E	S	14	3:42	9:51	16:05	22:14		W	14	4:55	11:09	17:31	23:34
			—1.0	7.2	—1.0	8.2				—1.2	7.8	—1.1	7.9				—0.8	7.7	—0.5	6.9
	F	15	3:17	9:17	15:30	21:43		M	15	4:31	10:42	16:59	23:06		Th	15	5:49	12:04	18:28	. . .
			—1.0	7.3	—0.9	8.0				—1.1	7.7	—0.7	7.5				—0.4	7.3	0.0	. . .
	S	16	4:05	10:10	16:22	22:32		Tu	16	5:22	11:34	17:54	. . .	☽	F	16	0:30	6:45	13:00	19:27
			—1.0	7.3	—0.8	7.7				—0.8	7.5	—0.4	. . .				6.4	—0.1	6.9	0.4
E	S	17	4:55	11:04	17:17	23:26	☽	W	17	0:00	6:16	12:30	18:54	S	S	17	1:30	7:46	14:02	20:32
			—0.8	7.3	—0.5	7.4				7.0	—0.5	7.2	0.0				6.0	0.2	6.5	0.6
	M	18	5:47	11:58	18:17	. . .		Th	18	0:56	7:12	13:29	19:56		S	18	2:36	8:48	15:05	21:35
			—0.6	7.2	—0.2	. . .				6.5	—0.2	7.0	0.3				5.8	0.4	6.4	0.7
☽	Tu	19	0:23	6:42	12:55	19:18		F	19	1:57	8:13	14:32	21:00		M	19	3:39	9:50	16:04	22:32
			7.0	—0.5	7.1	0.0				6.2	0.0	6.8	0.5				5.8	0.4	6.4	0.6
	W	20	1:22	7:40	13:56	20:21	S	S	20	3:02	9:15	15:38	22:04		Tu	20	4:38	10:50	16:57	23:22
			6.5	—0.3	7.0	0.2				6.0	0.1	6.7	0.5				6.0	0.4	6.4	0.5
	Th	21	2:23	8:40	14:58	21:26		S	21	4:05	10:15	16:32	23:02		W	21	5:28	11:39	17:47	. . .
			6.3	—0.2	7.0	0.3				5.9	0.1	6.7	0.5				6.1	0.2	6.5	. . .
	F	22	3:28	9:40	15:58	22:28		M	22	5:04	11:12	17:25	23:52		Th	22	0:06	6:12	12:22	18:30
			6.2	—0.2	7.0	0.3				6.0	0.0	6.8	0.3				0.3	6.3	0.1	6.6
	S	23	4:26	10:37	16:56	23:24		Tu	23	5:55	12:00	18:15	. . .	A	F	23	0:47	6:50	13:02	19:08
			6.2	—0.3	7.1	0.2				6.2	—0.1	6.9	. . .				0.1	6.5	0.1	6.7
S	S	24	5:24	11:32	17:47	. . .		W	24	0:38	6:40	12:48	18:56	○ E	S	24	1:22	7:26	13:38	19:41
			6.2	—0.4	7.2	. . .				0.2	6.3	—0.1	7.0				0.0	6.7	0.0	6.7
	M	25	0:15	6:15	12:20	18:35	○	Th	25	1:17	7:21	13:30	19:35		S	25	1:55	8:00	14:12	20:14
			0.1	6.3	0.4	7.3				0.0	6.4	—0.1	7.0				0.0	6.8	0.0	6.7
	Tu	26	1:02	7:02	13:08	19:20	A	F	26	1:55	7:57	14:06	20:12		M	26	2:28	8:32	14:48	20:48
			0.0	6.4	0.4	7.3				0.0	6.5	0.0	6.9				0.0	6.9	0.0	6.7
☾	W	27	1:44	7:45	13:52	20:00		S	27	2:28	8:30	14:40	20:45		Tu	27	3:00	9:06	15:24	21:22
			—0.1	6.4	—0.3	7.2				0.0	6.5	0.1	6.8				0.0	7.0	0.0	6.6
	Th	28	2:22	8:22	14:30	20:36	E	S	28	3:02	9:03	15:16	21:18		W	28	3:35	9:45	16:03	22:02
			—0.1	6.4	—0.1	7.1				0.0	6.6	0.2	6.7				0.0	7.0	0.0	6.5
	F	29	3:00	9:00	15:09	21:12		M	29	3:34	9:38	15:50	21:54		Th	29	4:15	10:28	16:47	22:45
			0.0	6.3	0.2	6.9				0.1	6.6	0.3	6.6				0.2	7.0	0.2	6.3
A	S	30	3:35	9:35	15:44	21:52		Tu	30	4:08	10:17	16:30	22:32		F	30	4:58	11:15	17:38	23:35
			0.0	6.3	0.3	6.7				0.1	6.7	0.3	6.5				0.3	6.9	0.3	6.1
	S	31	4:10	10:12	16:22	22:25		W	31	4:45	10:56	17:15	23:13							
			0.1	6.3	0.5	6.5				0.2	6.7	0.4	6.3							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator: A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	5:52	12:10	18:35	. . .			Tu	1	1:23	7:40	13:53	20:24		E	Th	1	2:10	8:30	14:38	20:58	
			0.4	6.7	0.5	. . .					6.2	0.4	6.6	0.2					6.7	0.2	6.6	—0.2	
☾	S	2	0:35	6:54	13:12	19:40			W	2	2:32	8:50	14:59	21:25		P	F	2	3:11	9:35	15:40	21:58	
			6.0	0.5	6.7	0.5					6.4	0.2	6.7	0.0					7.0	0.0	6.7	—0.4	
	M	3	1:40	8:00	14:17	20:46			Th	3	3:35	9:55	16:04	22:23			S	3	4:12	10:37	16:40	22:54	
			6.0	0.5	6.7	0.4					6.7	—0.1	6.9	—0.3					7.3	—0.3	6.8	—0.7	
	Tu	4	2:50	9:10	15:22	21:50		E	F	4	4:33	10:56	17:04	23:19			S	4	5:10	11:34	17:35	23:45	
			6.1	0.2	6.8	0.1					7.2	—0.5	7.2	—0.8					7.7	—0.5	6.9	—1.0	
	W	5	3:57	10:14	16:22	22:50		P	S	5	5:28	11:50	17:57	. . .			M	5	6:00	12:26	18:27	. . .	
			6.5	—0.2	7.1	—0.3					7.7	—0.9	7.4	. . .					8.0	—0.7	7.0	. . .	
	Th	6	4:56	11:15	17:24	23:44			S	6	0:10	6:20	12:44	18:47		●	Tu	6	0:37	6:50	13:15	19:16	
			7.0	—0.6	7.4	—0.7					—1.1	8.1	—1.2	7.5					—1.1	8.2	—0.8	7.1	
	F	7	5:54	12:09	18:20	. . .		●	M	7	1:00	7:10	13:32	19:35			W	7	1:26	7:38	14:05	20:02	
			7.5	—1.0	7.8	. . .					—1.3	8.4	—1.2	7.5					—1.1	8.2	—0.8	7.0	
P	S	8	0:35	6:42	13:02	19:10			Tu	8	1:45	7:59	14:20	20:22		S	Th	8	2:12	8:25	14:50	20:50	
E			—1.1	8.0	—1.3	8.0					—1.3	8.4	—1.2	7.4					—1.0	8.1	—0.7	6.9	
●	S	9	1:22	7:32	13:51	19:57			W	9	2:32	8:44	15:07	21:08			F	9	3:00	9:08	15:34	21:35	
			—1.3	8.3	—1.5	8.0					—1.2	8.3	—1.0	7.2					—0.7	7.8	—0.5	6.7	
	M	10	2:11	8:17	14:40	20:43		S	Th	10	3:20	9:32	15:55	21:57			S	10	3:42	9:54	16:18	22:20	
			—1.5	8.4	—1.5	7.8					—0.9	8.0	—0.7	6.9					—0.3	7.4	—0.3	6.4	
	Tu	11	2:55	9:05	15:28	21:30			F	11	4:06	10:18	16:43	22:46			S	11	4:30	10:39	17:07	23:10	
			—1.4	8.3	—1.2	7.5					—0.5	7.6	—0.3	6.5					0.1	7.0	0.0	6.1	
	W	12	3:42	9:54	16:17	22:20			S	12	4:56	11:07	17:34	23:37			M	12	5:17	11:24	17:52	23:56	
			—1.1	8.1	—0.8	7.1					—0.1	7.1	0.0	6.2					0.5	6.6	0.2	6.0	
	Th	13	4:32	10:44	17:07	23:09			S	13	5:49	12:00	18:25	. . .			Tu	13	6:07	12:13	18:38	. . .	
			—0.7	7.7	—0.4	6.7					0.4	6.6	0.4	. . .					0.8	6.2	0.5	. . .	
S	F	14	5:23	11:35	18:01	. . .		☽	M	14	0:32	6:45	12:52	19:20		☽ A	W	14	0:48	7:00	13:04	19:30	
			—0.3	7.2	0.0	. . .					5.9	0.7	6.2	0.5					5.8	1.0	5.9	0.6	
	S	15	0:04	6:17	12:30	18:59			Tu	15	1:30	7:43	13:47	20:14		E	Th	15	1:40	7:54	13:56	20:20	
			6.3	0.2	7.7	0.4					5.8	1.0	6.0	0.7					5.8	1.2	5.7	0.7	
☽	S	16	1:05	7:17	13:28	20:00			W	16	2:27	8:43	14:47	21:09			F	16	2:30	8:50	14:47	21:10	
			6.0	0.5	6.4	0.6					5.7	1.0	5.8	0.7					5.9	1.2	5.7	0.6	
	M	17	2:07	8:20	14:30	20:58		A	Th	17	3:20	9:38	15:40	22:00			S	17	3:22	9:44	15:40	22:00	
			5.8	0.7	6.1	0.7					5.8	1.0	5.8	0.6					6.1	1.0	5.7	0.5	
	Tu	18	3:08	9:20	15:27	21:54		E	F	18	4:09	10:30	16:31	22:45			S	18	4:10	10:35	16:30	22:46	
			5.8	0.8	6.0	0.7					6.1	0.8	5.9	0.4					6.4	0.7	5.8	0.2	
	W	19	4:04	10:17	16:25	22:44			S	19	4:56	11:17	17:15	23:28			M	19	5:00	11:24	17:17	23:34	
			5.9	0.7	6.1	0.5					6.4	0.6	6.0	0.2					6.8	0.4	6.0	0.0	
A	Th	20	4:54	11:10	17:14	23:28			S	20	5:36	11:57	17:56	. . .			Tu	20	5:45	12:10	18:05	. . .	
			6.1	0.6	6.2	0.3					6.7	0.3	6.2	. . .					7.1	0.1	6.2	. . .	
E	F	21	5:37	11:52	17:57	. . .			M	21	0:07	6:16	12:40	18:35			W	21	0:16	6:30	12:55	18:49	
			6.4	0.4	6.3	. . .					0.0	7.0	0.0	6.3					—0.2	7.5	—0.2	6.4	
	S	22	0:08	6:16	12:32	18:36		○	Tu	22	0:48	6:57	13:20	19:15		○ N	Th	22	1:00	7:15	13:40	19:32	
			0.2	6.6	0.2	6.5					—0.1	7.3	—0.1	6.5					—0.3	7.7	—0.4	6.6	
	S	23	0:47	6:53	13:08	19:09			W	23	1:26	7:36	14:02	19:55			F	23	1:46	8:00	14:25	20:20	
			0.0	6.8	0.0	6.5					—0.2	7.5	—0.3	6.5					—0.5	7.9	—0.6	6.7	
○	M	24	1:22	7:27	13:47	19:44			Th	24	2:06	8:19	14:45	20:37			S	24	2:31	8:45	15:10	21:07	
			—0.1	7.0	—0.2	6.6					—0.2	7.6	—0.4	6.6					—0.5	7.9	—0.6	6.8	
	Tu	25	1:55	8:02	14:23	20:20		N	F	25	2:47	9:02	15:27	21:22			S	25	3:20	9:33	15:57	21:57	
			—0.1	7.2	—0.2	6.6					—0.2	7.7	—0.4	6.6					—0.5	7.8	—0.6	6.8	
	W	26	2:30	8:42	15:03	20:57			S	26	3:33	9:49	16:12	22:09			M	26	4:10	10:22	16:47	22:50	
			—0.1	7.3	—0.2	6.6					—0.2	7.6	—0.3	6.5					—0.4	7.6	—0.5	6.8	
	Th	27	3:09	9:20	15:46	21:37			S	27	4:22	10:37	17:03	23:04		P	Tu	27	5:04	11:14	17:40	23:47	
			—0.1	7.4	—0.2	6.5					0.0	7.4	—0.2	6.5					—0.2	7.3	—0.4	6.8	
	F	28	3:48	10:05	16:30	22:24			M	28	5:16	11:32	18:00	. . .			W	28	6:00	12:10	18:35	. . .	
			0.0	7.3	0.0	6.4					0.1	7.1	—0.1	. . .					0.0	7.0	—0.3	. . .	
N	S	29	4:35	10:54	17:22	23:17			Tu	29	0:02	6:18	12:30	18:57		E ☾	Th	29	0:45	7:04	13:11	19:32	
			0.2	7.1	0.1	6.2					6.4	0.2	6.8	0.0					6.8	0.1	6.7	—0.2	
	S	30	5:30	11:49	18:16	. . .		☾	W	30	1:05	7:22	13:32	19:58			F	30	1:45	8:10	14:15	20:32	
			0.3	6.9	0.2	. . .					6.5	0.3	6.7	0.0					6.9	0.1	6.5	—0.2	
☾	M	31	0:17	6:32	12:49	19:18											S	31	2:50	9:14	15:16	21:32	
			6.2	0.3	6.8	0.3													7.0	0.1	6.4	—0.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Eastern Standard, 75th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:35	11:58	17:56	. . .	
			6.7	0.0	5.7	. . .	
N ○	S	2	0:04	6:28	12:49	18:50	
			—0.4	7.1	—0.4	6.0	
	S	3	0:57	7:18	13:40	19:41	
			—0.8	7.3	—0.7	6.2	
P	M	4	1:48	8:08	14:29	20:32	
			—0.9	7.3	—0.8	6.2	
	Tu	5	2:40	8:58	15:18	21:23	
			—0.8	7.1	—0.7	6.2	
	W	6	3:31	9:48	16:08	22:15	
			—0.6	6.9	—0.6	6.2	
	Th	7	4:25	10:40	17:00	23:11	
			—0.3	6.6	—0.5	6.1	
E	F	8	5:22	11:34	17:51	. . .	
			—0.1	6.2	—0.2	. . .	
☾	S	9	0:07	6:20	12:30	18:46	
			6.0	0.2	5.8	—0.1	
	S	10	1:07	7:24	13:29	19:44	
			5.9	0.4	5.5	0.0	
	M	11	2:07	8:28	14:31	20:41	
			5.9	0.6	5.3	0.1	
	Tu	12	3:07	9:30	15:32	21:39	
			5.9	0.6	5.2	0.1	
	W	13	4:04	10:29	16:29	22:34	
			6.0	0.6	5.2	0.0	
	Th	14	4:56	11:23	17:22	23:24	
			6.2	0.5	5.2	0.0	
S	F	15	5:45	12:11	18:11	. . .	
			6.2	0.4	5.3	. . .	
	S	16	0:11	6:30	12:54	18:54	
			0.0	6.2	0.3	5.3	
●	S	17	0:55	7:11	13:34	19:34	
			0.0	6.2	0.3	5.3	
	M	18	1:35	7:49	14:10	20:11	
			0.1	6.1	0.2	5.3	
A	Tu	19	2:11	8:25	14:45	20:44	
			0.3	6.0	0.2	5.3	
	W	20	2:46	8:59	15:18	21:16	
			0.5	5.9	0.3	5.3	
	Th	21	3:21	9:32	15:52	21:52	
			0.6	5.7	0.3	5.3	
E	F	22	3:56	10:07	16:27	22:33	
			0.7	5.6	0.3	5.4	
	S	23	4:38	10:45	17:07	23:20	
			0.7	5.5	0.4	5.5	
	S	24	5:25	11:30	17:54	. . .	
			0.7	5.4	0.4	. . .	
☽	M	25	0:12	6:21	12:21	18:46	
			5.6	0.7	5.3	0.4	
	Tu	26	1:10	7:22	13:20	19:44	
			5.7	0.7	5.2	0.3	
	W	27	2:11	8:27	14:23	20:46	
			5.9	0.6	5.2	0.2	
	Th	28	3:14	9:34	15:31	21:49	
			6.1	0.4	5.3	—0.1	
N	F	29	4:15	10:36	16:36	22:49	
			6.4	0.1	5.5	—0.4	
	S	30	5:13	11:35	17:36	23:46	
			6.8	—0.2	5.8	—0.7	
	S	31	6:09	12:30	18:32	. . .	
			7.0	—0.5	6.2	. . .	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○ P	M	1	0:41	7:00	13:21	19:25	
			—0.9	7.2	—0.8	6.4	
	Tu	2	1:34	7:51	14:10	20:15	
			—1.0	7.3	—0.9	6.6	
	W	3	2:25	8:41	14:59	21:05	
			—1.0	7.2	—1.0	6.6	
E	Th	4	3:12	9:30	15:47	21:56	
			—0.8	6.9	—0.8	6.6	
	F	5	4:09	10:20	16:35	22:48	
			—0.6	6.6	—0.6	6.4	
	S	6	5:02	11:10	17:25	23:41	
			—0.2	6.2	—0.3	6.2	
	S	7	5:58	12:03	18:17	. . .	
			0.1	5.7	—0.1	. . .	
☾	M	8	0:38	6:57	13:00	19:14	
			6.0	0.4	5.3	0.1	
	Tu	9	1:36	7:59	14:00	20:11	
			5.8	0.7	5.1	0.3	
	W	10	2:36	9:00	15:02	21:10	
			5.7	0.8	5.0	0.4	
S	Th	11	3:35	10:00	16:02	22:07	
			5.7	0.8	5.0	0.4	
	F	12	4:29	10:55	16:56	23:00	
			5.8	0.7	5.0	0.3	
	S	13	5:19	11:43	17:45	23:48	
			5.9	0.6	5.2	0.2	
	S	14	6:04	12:26	18:29	. . .	
			5.9	0.4	5.3	. . .	
A	M	15	0:31	6:45	13:04	19:07	
			0.2	6.0	0.3	5.4	
●	Tu	16	1:11	7:22	13:40	19:41	
			0.2	6.0	0.2	5.4	
	W	17	1:46	7:56	14:13	20:14	
			0.2	6.0	0.1	5.6	
	Th	18	2:20	8:29	14:45	20:46	
			0.3	5.9	0.1	5.7	
E	F	19	2:55	9:03	15:18	21:23	
			0.3	5.8	0.1	5.8	
	S	20	3:31	9:38	15:53	22:03	
			0.3	5.8	0.2	5.8	
	S	21	4:13	10:18	16:33	22:49	
			0.4	5.6	0.2	5.9	
	M	22	4:59	11:00	17:18	23:40	
			0.4	5.5	0.3	5.9	
	Tu	23	5:52	11:50	18:11	. . .	
			0.5	5.4	0.4	. . .	
☽	W	24	0:37	6:52	12:49	19:11	
			5.8	0.6	5.2	0.4	
	Th	25	1:40	7:59	13:56	20:19	
			5.9	0.6	5.2	0.3	
N	F	26	2:47	9:08	15:07	21:26	
			6.0	0.5	5.3	0.0	
	S	27	3:51	10:14	16:15	22:30	
			6.2	0.2	5.6	—0.3	
	S	28	4:52	11:18	17:17	23:30	
			6.5	—0.2	6.0	—0.6	
	M	29	5:49	12:09	18:14	. . .	
			6.8	—0.6	6.4	. . .	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	0:26	6:43	13:00	19:06	
			—0.9	7.1	—0.9	6.7	
	W	2	1:19	7:33	13:49	19:56	
			—1.1	7.2	—1.0	6.9	
E	Th	3	2:10	8:21	14:36	20:45	
			—1.1	7.1	—1.0	7.0	
	F	4	3:00	9:10	15:21	21:34	
			—1.0	6.8	—0.9	6.9	
	S	5	3:50	9:57	16:09	22:23	
			—0.7	6.5	—0.6	6.7	
	S	6	4:40	10:46	16:56	23:14	
			—0.3	6.0	—0.3	6.3	
	M	7	5:31	11:36	17:46	. . .	
			0.1	5.6	0.0	. . .	
☾	Tu	8	0:07	6:26	12:29	18:40	
			6.0	0.5	5.2	0.4	
S	W	9	1:02	7:26	13:27	19:38	
			5.7	0.8	4.9	0.6	
	Th	10	2:00	8:26	14:30	20:38	
			5.5	0.9	4.8	0.7	
	F	11	3:00	9:25	15:31	21:38	
			5.4	1.0	4.8	0.7	
	S	12	3:56	10:19	16:26	22:32	
			5.4	0.8	4.9	0.6	
	S	13	4:47	11:08	17:14	23:21	
			5.5	0.6	5.1	0.5	
A	M	14	5:33	11:51	17:57	. . .	
			5.6	0.4	5.3	. . .	
	Tu	15	0:05	6:14	12:30	18:35	
			0.3	5.8	0.3	5.5	
●	W	16	0:44	6:51	13:05	19:10	
			0.2	5.8	0.1	5.7	
E	Th	17	1:20	7:27	13:39	19:44	
			0.1	5.9	0.1	5.9	
	F	18	1:56	8:01	14:11	20:20	
			0.1	5.9	0.0	6.1	
	S	19	2:33	8:35	14:46	20:58	
			0.0	5.9	0.0	6.2	
	S	20	3:11	9:12	15:24	21:38	
			0.0	5.8	0.1	6.2	
	M	21	3:52	9:51	16:04	22:23	
			0.1	5.7	0.1	6.1	
	Tu	22	4:39	10:35	16:51	23:14	
			0.2	5.5	0.3	6.0	
	W	23	5:32	11:28	17:45	. . .	
			0.4	5.3	0.4	. . .	
N ☽	Th	24	0:11	6:31	12:30	18:48	
			5.9	0.5	5.2	0.5	
	F	25	1:16	7:37	13:38	19:57	
			5.8	0.6	5.2	0.4	
	S	26	2:24	8:45	14:50	21:08	
			5.9	0.4	5.3	0.2	
	S	27	3:29	9:51	15:58	22:14	
			6.0	0.1	5.7	—0.2	
	M	28	4:32	10:51	17:00	23:15	
			6.3	—0.2	6.1	—0.5	
P	Tu	29	5:30	11:46	17:55	. . .	
			6.6	—0.6	6.6	. . .	
E	W	30	0:11	6:24	12:36	18:46	
			—0.8	6.8	—0.8	6.9	
○	Th	31	1:02	7:14	13:24	19:34	
			—1.0	6.9	—1.0	7.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	1:54	8:02	14:12	20:24		S	1	2:24	8:26	14:31	20:47		W	1	3:30	9:30	15:33	21:48
			—1.0	6.8	—1.0	7.1				—0.6	6.2	—0.7	6.9				0.0	5.4	0.2	6.1
	S	2	2:43	8:49	14:58	21:11		M	2	3:09	9:11	15:15	21:31		Th	2	4:10	10:11	16:14	22:30
			—0.9	6.6	—0.9	7.0				—0.4	5.9	—0.4	6.6				0.3	5.2	0.5	5.8
	S	3	3:30	9:35	15:42	21:58	S	Tu	3	3:54	9:56	16:00	22:16		F	3	4:51	10:54	16:56	23:11
			—0.6	6.2	—0.6	6.7				—0.1	5.6	0.0	6.2				0.5	5.0	0.8	5.5
	M	4	4:18	10:20	16:29	22:46		W	4	4:38	10:40	16:45	23:02		S	4	5:34	11:39	17:42	23:55
			—0.2	5.8	—0.2	6.3				0.2	5.3	0.4	5.8				0.6	4.9	1.1	5.2
	Tu	5	5:06	11:08	17:16	23:36		Th	5	5:24	11:27	17:33	23:50	A	S	5	6:18	12:27	18:33	. . .
			0.2	5.4	0.2	5.9				0.5	5.0	0.8	5.5	☾			0.7	4.9	1.2	. . .
S	W	6	5:57	11:59	18:09	. . .		F	6	6:12	12:18	18:25	. . .		M	6	0:42	7:06	13:20	19:28
			0.5	5.1	0.6	. . .				0.7	4.8	1.0	. . .				5.1	0.8	5.0	1.2
☾	Th	7	0:28	6:51	12:55	19:05	☾	S	7	0:39	7:04	13:13	19:21	E	Tu	7	1:33	7:56	14:14	20:26
			5.6	0.8	4.8	0.9				5.2	0.9	4.7	1.2				5.0	0.7	5.2	1.1
	F	8	1:23	7:47	13:54	20:04	A	S	8	1:32	7:55	14:09	20:19		W	8	2:27	8:48	15:08	21:23
			5.3	1.0	4.7	1.0				5.0	0.9	4.8	1.2				5.0	0.5	5.5	0.9
	S	9	2:20	8:45	14:54	21:04		M	9	2:26	8:47	15:04	21:13		Th	9	3:22	9:40	16:00	22:20
			5.1	1.0	4.7	1.0				5.0	0.8	5.0	1.1				5.1	0.3	5.8	0.6
A	S	10	3:16	9:38	15:49	22:00	E	Tu	10	3:20	9:38	15:54	22:09		F	10	4:16	10:30	16:50	23:11
			5.1	0.9	4.9	0.9				5.1	0.7	5.3	0.8				5.3	0.1	6.2	0.2
	M	11	4:09	10:27	16:37	22:49		W	11	4:11	10:25	16:41	22:58		S	11	5:09	11:19	17:40	. . .
			5.2	0.7	5.2	0.7				5.2	0.4	5.7	0.5				5.5	—0.2	6.5	. . .
	Tu	12	4:56	11:11	17:20	23:34		Th	12	4:59	11:11	17:25	23:44		S	12	0:01	5:59	12:07	18:28
			5.4	0.5	5.5	0.4				5.4	0.1	6.0	0.2				0.0	5.6	—0.4	6.8
E	W	13	5:39	11:51	18:00	. . .		F	13	5:44	11:54	18:09	. . .	●	M	13	0:49	6:47	12:54	19:15
			5.6	0.2	5.8	. . .				5.6	0.1	6.3	. . .				—0.3	5.8	—0.5	7.0
	Th	14	0:15	6:20	12:30	18:39		S	14	0:27	6:28	12:35	18:52	N	Tu	14	1:36	7:35	13:41	20:02
			0.2	5.7	0.0	6.0				—0.1	5.7	—0.3	6.6				—0.4	5.9	—0.6	7.1
●	F	15	0:55	6:58	13:06	19:17	●	S	15	1:11	7:10	13:16	19:35		W	15	2:24	8:22	14:30	20:50
			0.0	5.8	—0.1	6.3				—0.2	5.8	—0.4	6.8				—0.5	5.9	—0.5	7.0
	S	16	1:34	7:35	13:44	19:56		M	16	1:55	7:52	13:59	20:19		Th	16	3:11	9:11	15:18	21:40
			—0.2	5.9	—0.2	6.4				—0.3	5.8	—0.4	6.8				—0.5	5.9	—0.4	6.8
	S	17	2:14	8:13	14:21	20:37	N	Tu	17	2:40	8:36	14:42	21:05	P	F	17	4:00	10:02	16:11	22:30
			—0.2	5.9	—0.2	6.5				—0.3	5.8	—0.3	6.8				—0.4	5.8	—0.2	6.5
	M	18	2:55	8:52	15:00	21:20		W	18	3:25	9:21	15:29	21:53		S	18	4:51	10:57	17:07	23:24
			—0.2	5.8	—0.1	6.5				—0.3	5.7	—0.1	6.6				—0.3	5.8	0.0	6.2
	Tu	19	3:39	9:35	15:44	22:07		Th	19	4:14	10:12	16:20	22:44		S	19	5:45	11:56	18:08	. . .
			—0.1	5.7	0.0	6.4				—0.1	5.6	0.1	6.3				—0.2	5.8	0.3	. . .
N	W	20	4:26	10:21	16:33	22:59		F	20	5:06	11:08	17:18	23:40	☽	M	20	0:20	6:41	12:57	19:12
			0.1	5.5	0.2	6.2				0.0	5.5	0.3	6.1	E			5.9	0.0	5.8	0.4
	Th	21	5:19	11:16	17:30	23:56		S	21	6:02	12:09	18:21	. . .		Tu	21	1:21	7:40	14:00	20:19
			0.2	5.4	0.4	6.0				0.1	5.4	0.4	. . .				5.7	0.0	5.9	0.4
☽	F	22	6:17	12:19	18:34	. . .	☽	S	22	0:40	7:02	13:15	19:29		W	22	2:25	8:40	15:02	21:24
			0.4	5.2	0.5	. . .	P			5.8	0.2	5.5	0.4				5.5	0.0	6.1	0.4
	S	23	0:58	7:20	13:27	19:44		M	23	1:44	8:04	14:21	20:38		Th	23	3:28	9:39	16:00	22:25
			5.8	0.4	5.3	0.4				5.7	0.2	5.7	0.4				5.5	—0.2	6.3	0.3
	S	24	2:04	8:26	14:37	20:54	E	Tu	24	2:49	9:05	15:20	21:45		F	24	4:28	10:34	16:57	23:21
			5.7	0.3	5.5	0.3				5.7	0.0	6.0	0.2				5.5	—0.3	6.5	0.2
	M	25	3:10	9:29	15:43	22:00		W	25	3:52	10:04	16:22	22:44		S	25	5:22	11:26	17:48	. . .
			5.8	0.1	5.8	0.0				5.8	—0.2	6.3	—0.1				5.6	—0.4	6.6	. . .
P	Tu	26	4:14	10:29	16:43	23:01		Th	26	4:50	10:59	17:16	23:40		S	26	0:12	6:13	12:16	18:35
			6.0	—0.2	6.3	—0.3				5.9	—0.5	6.6	—0.2				0.1	5.6	—0.5	6.7
E	W	27	5:11	11:24	17:36	23:56		F	27	5:44	11:50	18:08	. . .	S	M	27	1:00	7:00	13:02	19:20
			6.2	—0.6	6.7	—0.6				6.0	—0.6	6.8	. . .	○			0.0	5.6	—0.4	6.6
	Th	28	6:05	12:14	18:27	. . .		S	28	0:31	6:34	12:38	18:55		Tu	28	1:44	7:44	13:46	20:02
			6.4	—0.8	7.0	. . .				—0.3	6.0	—0.7	7.0				0.0	5.6	—0.2	6.5
○	F	29	0:48	6:55	13:01	19:16	○	S	29	1:19	7:20	13:24	19:40		W	29	2:25	8:25	14:28	20:41
			—0.8	6.4	—0.9	7.1				—0.4	5.9	—0.7	6.9				0.0	5.4	0.0	6.3
	S	30	1:36	7:41	13:47	20:01	S	M	30	2:04	8:05	14:08	20:24		Th	30	3:04	9:05	15:06	21:20
			—0.8	6.3	—0.9	7.1				—0.3	5.8	—0.5	6.7				0.1	5.3	0.3	6.0
								Tu	31	2:47	8:48	14:50	21:06							
										—0.2	5.6	—0.2	6.5							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:44	9:46	15:48	22:00		E	M	1	4:19	10:24	16:28	22:35			Th	1	4:56	11:15	17:29	23:26	
			0.2	5.2	0.5	5.9					0.3	5.4	0.7	5.5					0.4	5.8	0.6	5.3	
A	S	2	4:21	10:22	16:24	22:37			Tu	2	4:54	11:03	17:10	23:15		☾	F	2	5:44	12:08	18:24	. . .	
			0.3	5.2	0.8	5.6					0.4	5.5	0.7	5.4					0.5	5.7	0.6	. . .	
	S	3	4:58	11:01	17:03	23:15			W	3	5:35	11:50	17:59	. . .			S	3	0:20	6:40	13:08	19:26	
			0.4	5.1	0.9	5.4					0.5	5.5	0.8	. . .					5.2	0.5	5.7	0.7	
E	M	4	5:37	11:44	17:47	23:55		☾	Th	4	0:00	6:21	12:44	18:55		N	S	4	1:22	7:44	14:13	20:34	
			0.6	5.1	1.0	5.2					5.2	0.5	5.6	0.8					5.1	0.5	5.8	0.6	
☾	Tu	5	6:20	12:31	18:38	. . .			F	5	0:52	7:15	13:41	19:57			M	5	2:32	8:52	15:19	21:41	
			0.6	5.2	1.0	. . .					5.1	0.5	5.6	0.8					5.1	0.3	6.0	0.4	
	W	6	0:41	7:07	13:25	19:35			S	6	1:52	8:15	14:44	21:03			Tu	6	3:43	9:59	16:22	22:45	
			5.1	0.6	5.3	1.0					5.0	0.5	5.8	0.7					5.3	0.0	6.3	0.0	
	Th	7	1:35	7:59	14:22	20:36			S	7	2:59	9:19	15:46	22:09			W	7	4:48	11:01	17:21	23:41	
			5.0	0.6	5.5	0.9					5.1	0.3	6.1	0.4					5.7	—0.4	6.6	—0.4	
	F	8	2:32	8:55	15:20	21:39		N	M	8	4:06	10:21	16:46	23:10			Th	8	5:46	12:00	18:16	. . .	
			5.0	0.4	5.8	0.6					5.3	0.0	6.4	0.1					6.2	—0.7	6.8	. . .	
	S	9	3:35	9:51	16:16	22:38			Tu	9	5:10	11:22	17:44	. . .		P	F	9	0:35	6:40	12:54	19:09	
			5.1	0.2	6.1	0.4					5.6	—0.4	6.7	. . .		●			—0.7	6.6	—1.0	7.1	
	S	10	4:35	10:48	17:12	23:35			W	10	0:05	6:08	12:17	18:36		E	S	10	1:24	7:31	13:45	19:58	
			5.3	—0.1	6.5	0.1					—0.3	5.9	—0.7	7.0					—1.0	6.9	—1.1	7.1	
N	M	11	5:34	11:43	18:05	. . .		●	Th	11	0:57	7:00	13:10	19:28			S	11	2:11	8:20	14:36	20:46	
			5.5	—0.3	6.8	. . .					—0.6	6.3	—0.9	7.2					—1.1	7.1	—1.1	7.0	
●	Tu	12	0:28	6:29	12:35	18:56		P	F	12	1:46	7:51	14:02	20:17			M	12	2:58	9:09	15:26	21:35	
			—0.3	5.8	—0.6	7.1					—0.9	6.5	—1.0	7.2					—1.1	7.1	—1.0	6.7	
	W	13	1:18	7:20	13:26	19:46			S	13	2:35	8:40	14:52	21:06			Tu	13	3:45	9:59	16:16	22:23	
			—0.5	6.0	—0.7	7.2					—1.0	6.7	—1.0	7.1					—0.9	6.9	—0.7	6.3	
P	Th	14	2:08	8:10	14:16	20:35		E	S	14	3:22	9:31	15:44	21:55			W	14	4:34	10:49	17:08	23:14	
			—0.7	6.2	—0.8	7.2					—1.0	6.7	—0.8	6.8					—0.6	6.7	—0.3	5.9	
	F	15	2:55	8:58	15:07	21:24			M	15	4:10	10:21	16:35	22:45			Th	15	5:24	11:42	18:02	. . .	
			—0.8	6.3	—0.7	7.0					—0.8	6.7	—0.5	6.4					—0.2	6.3	0.2	. . .	
	S	16	3:44	9:48	15:58	22:14			Tu	16	4:58	11:13	17:29	23:36		☽	F	16	0:07	6:18	12.88	19:00	
			—0.7	6.3	—0.5	6.7					—0.6	6.5	—0.2	6.0					5.5	0.1	6.0	0.5	
E	S	17	4:33	10:41	16:52	23:05		☽	W	17	5:49	12:08	18:26	. . .		S	S	17	1:05	7:15	13:36	20:01	
			—0.6	6.2	—0.3	6.4					—0.3	6.3	0.2	. . .					5.1	0.4	5.7	0.7	
	M	18	5:22	11:35	17:48	23:58			Th	18	0:30	6:45	13:06	19:28			S	18	2:08	8:14	14:38	21:02	
			—0.4	6.2	0.0	6.0					5.6	0.0	6.0	0.5					4.9	0.6	5.5	0.8	
☽	Tu	19	6:15	12:32	18:49	. . .			F	19	1:31	7:44	14:07	20:31			M	19	3:12	9:19	15:37	22:00	
			—0.2	6.1	0.2	. . .					5.2	0.2	5.8	0.7					4.9	0.6	5.4	0.8	
	W	20	0:55	7:11	13:32	19:52		S	S	20	2:35	8:45	15:09	21:34			Tu	20	4:10	10:17	16:32	22:52	
			5.7	—0.1	6.0	0.4					5.1	0.3	5.8	0.8					5.0	0.6	5.5	0.6	
	Th	21	1:56	8:10	14:35	20:57			S	21	3:39	9:45	16:08	22:33			W	21	5:03	11:09	17:21	23:39	
			5.4	0.0	6.0	0.6					5.0	0.3	5.8	0.7					5.2	0.5	5.6	0.4	
	F	22	3:01	9:11	15:35	22:00			M	22	4:38	10:44	17:02	23:26			Th	22	5:48	11:55	18:05	. . .	
			5.3	0.1	6.0	0.6					5.1	0.3	5.9	0.5					5.4	0.4	5.7	. . .	
	S	23	4:03	10:09	16:33	22:59			Tu	23	5:31	11:35	17:51	. . .		A	F	23	0:20	6:29	12:37	18:46	
			5.2	0.0	6.1	0.5					5.2	0.2	5.9	. . .					0.3	5.5	0.3	5.8	
S	S	24	5:00	11:05	17:26	23:52			W	24	0:13	6:18	12:22	18:36		○	S	24	0:58	7:04	13.15	19:20	
			5.3	—0.1	6.3	0.3					0.4	5.4	0.1	6.0		E			0.2	5.7	0.2	5.8	
	M	25	5:54	11:56	18:15	. . .		○	Th	25	0:55	7:00	13:05	19:15			S	25	1:31	7:37	13:50	19:54	
			5.4	—0.1	6.3	. . .					0.2	5.5	0.1	6.0					0.1	5.9	0.1	5.8	
	Tu	26	0:40	6:42	12:44	19:00		A	F	26	1:32	7:37	13:43	19:51			M	26	2:04	8:11	14:25	20:26	
			0.2	5.4	—0.1	6.3					0.1	5.5	0.1	6.0					0.1	6.0	0.1	5.7	
○	W	27	1:23	7:26	13:28	19:41			S	27	2:08	8:10	14:17	20:25			Tu	27	2:35	8:45	15:00	21:00	
			0.1	5.4	—0.1	6.3					0.1	5.6	0.2	5.9					0.1	6.0	0.1	5.7	
	Th	28	2:01	8:05	14:08	20:19		E	S	28	2:39	8:42	14:50	20:56			W	28	3:08	9:21	15:38	21:35	
			0.1	5.4	0.1	6.3					0.1	5.7	0.3	5.8					0.2	6.1	0.2	5.6	
	F	29	2:39	8:42	14:44	20:54			M	29	3:09	9:15	15:24	21:29			Th	29	3:45	10:02	16:20	22:15	
			0.1	5.4	0.2	6.0					0.2	5.7	0.4	5.7					0.3	6.1	0.3	5.4	
A	S	30	3:14	9:15	15:18	21:28			Tu	30	3:41	9:50	16:00	22:03			F	30	4:26	10:49	17:08	23:02	
			0.1	5.4	0.4	5.8					0.3	5.8	0.4	5.6					0.4	6.0	0.4	5.3	
	S	31	3:46	9:48	15:51	22:00			W	31	4:16	10:30	16:41	22:41									
			0.2	5.4	0.6	5.6					0.3	5.8	0.4	5.5									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator. A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			OCTOBER.			
N	S	1	5:15 0.4	11:42 5.9	18:01 0.5	23:57 5.2
☾	S	2	6:13 0.5	12:41 5.8	19:03 0.5	. . . . . .
	M	3	1:02 5.1	7:19 0.6	13:46 5.8	20:09 0.5
	Tu	4	2:14 5.2	8:30 0.4	14:54 5.8	21:16 0.3
	W	5	3:23 5.5	9:40 0.1	15:58 6.0	22:19 0.0
	Th	6	4:28 5.9	10:44 —0.2	16:59 6.3	23:16 —0.4
	F	7	5:26 6.4	11:44 —0.6	17:56 6.6	. . . . . .
P E ●	S	8	0:10 —0.7	6:20 6.8	12:38 —0.9	18:48 6.8
	S	9	1:00 —1.0	7:11 7.1	13:29 —1.1	19:38 6.8
	M	10	1:47 —1.1	7:59 7.3	14:20 —1.1	20:26 6.7
	Tu	11	2:34 —1.1	8:47 7.2	15:08 —0.9	21:14 6.5
	W	12	3:20 —0.8	9:35 7.0	15:56 —0.6	22:01 6.1
	Th	13	4:07 —0.5	10:24 6.6	16:45 —0.2	22:50 5.7
S	F	14	4:56 —0.1	11:14 6.3	17:36 0.2	23:41 5.4
☽	S	15	5:48 0.3	12:06 5.9	18:30 0.5	. . . . . .
	S	16	0:37 5.1	6:44 0.6	13:02 5.5	19:26 0.7
	M	17	1:36 4.9	7:46 0.8	14:00 5.3	20:24 0.8
	Tu	18	2:36 4.9	8:41 0.9	14:58 5.2	21:20 0.8
	W	19	3:35 5.0	9:44 0.9	15:54 5.2	22:12 0.7
A	Th	20	4:26 5.1	10:36 0.8	16:44 5.3	22:59 0.5
E	F	21	5:11 5.4	11:24 0.6	17:29 5.4	23:41 0.3
	S	22	5:51 5.7	12:06 0.4	18:10 5.5	. . . . . .
	S	23	0:20 0.2	6:24 5.9	12:45 0.2	18:47 5.6
○	M	24	0:55 0.1	7:05 6.1	13:24 0.0	19:24 5.6
	Tu	25	1:31 0.0	7:42 6.2	14:00 0.0	20:00 5.6
	W	26	2:05 0.0	8:20 6.4	14:40 —0.1	20:35 5.6
	Th	27	2:41 0.1	9:00 6.4	15:20 0.0	21:04 5.6
	F	28	3:21 0.1	9:44 6.3	16:04 0.1	21:58 5.5
N	S	29	4:05 0.3	10:30 6.2	16:51 0.2	22:47 5.4
	S	30	4:56 0.4	11:23 6.0	17:45 0.3	23:44 5.3
☾	M	31	5:55 0.5	12:21 5.9	18:45 0.4	. . . . . .

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			NOVEMBER.			
	Tu	1	0:48 5.2	7:01 0.6	13:24 5.7	19:47 0.3
	W	2	1:56 5.4	8:12 0.5	14:30 5.7	20:50 0.2
	Th	3	3:05 5.7	9:21 0.2	15:35 5.8	21:52 0.0
E	F	4	4:08 6.1	10:26 —0.1	16:37 6.1	22:50 —0.4
P	S	5	5:05 6.5	11:26 —0.5	17:34 6.3	23:45 —0.7
	S	6	5:59 6.9	12:21 —0.7	18:28 6.4	. . . . . .
●	M	7	0:35 —0.9	6:50 7.2	13:12 —0.9	19:18 6.4
	Tu	8	1:23 —1.0	7:39 7.3	14:01 —0.8	20:05 6.3
	W	9	2:10 —0.9	8:26 7.2	14:49 —0.7	20:53 6.1
S	Th	10	2:57 —0.7	9:13 7.0	15:35 —0.5	21:40 5.9
	F	11	3:43 —0.3	10:00 6.6	16:22 —0.2	22:26 5.6
	S	12	4:30 0.1	10:46 6.2	17:09 0.1	23:15 5.3
	S	13	5:19 0.5	11:35 5.8	17:58 0.4	. . . . . .
☽	M	14	0:05 5.1	6:10 0.8	12:25 5.5	18:49 0.6
	Tu	15	1:00 4.9	7:06 1.0	13:16 5.2	19:40 0.8
	W	16	1:55 4.9	8:04 1.2	14:11 5.0	20:31 0.8
A	Th	17	2:49 5.0	9:01 1.1	15:05 5.0	21:23 0.7
E	F	18	3:40 5.2	9:55 1.0	15:56 5.1	22:10 0.5
	S	19	4:27 5.5	10:44 0.7	16:45 5.2	22:55 0.4
	S	20	5:10 5.7	11:30 0.5	17:30 5.3	23:38 0.2
	M	21	5:54 6.0	12:14 0.2	18:14 5.4	. . . . . .
○	Tu	22	0:20 0.0	6:35 6.3	12:56 0.0	18:55 5.5
	W	23	1:00 —0.1	7:18 6.5	13:39 —0.1	19:35 5.6
	Th	24	1:40 —0.1	8:00 6.6	14:21 —0.2	20:17 5.6
N	F	25	2:22 —0.1	8:43 6.7	15:04 —0.2	21:00 5.6
	S	26	3:05 0.0	9:29 6.6	15:50 —0.1	21:45 5.6
	S	27	3:52 0.1	10:15 6.4	16:39 0.0	22:36 5.5
	M	28	4:44 0.2	11:08 6.2	17:30 0.1	23:34 5.5
	Tu	29	5:42 0.4	12:04 5.9	18:26 0.1	. . . . . .
☾	W	30	0:35 5.5	6:47 0.5	13:04 5.7	19:25 0.2

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			DECEMBER.			
E	Th	1	1:40 5.6	7:55 0.5	14:06 5.6	20:26 0.1
P	F	2	2:45 5.9	9:04 0.3	15:11 5.7	21:27 —0.1
	S	3	3:46 6.2	10:09 0.1	16:15 5.7	22:25 —0.4
	S	4	4:45 6.5	11:09 —0.2	17:13 5.9	23:20 —0.6
	M	5	5:40 6.8	12:04 —0.3	18:08 6.0	. . . . . .
●	Tu	6	0:12 —0.7	6:30 7.0	12:55 —0.5	18:58 6.0
	W	7	1:02 —0.8	7:19 7.1	13:44 —0.5	19:46 6.0
S	Th	8	1:50 —0.7	8:06 7.0	14:30 —0.4	20:32 5.9
	F	9	2:35 —0.5	8:51 6.8	15:15 —0.3	21:19 5.7
	S	10	3:20 —0.2	9:35 6.5	15:59 —0.1	22:02 5.5
	S	11	4:04 0.2	10:18 6.1	16:41 0.1	22:46 5.3
	M	12	4:49 0.6	11:00 5.8	17:24 0.4	23:30 5.1
	Tu	13	5:34 0.9	11:44 5.4	18:07 0.5	. . . . . .
☽ A	W	14	0:17 5.0	6:21 1.1	12:30 5.2	18:52 0.7
E	Th	15	1:06 5.0	7:14 1.2	13:17 5.0	19:40 0.7
	F	16	1:58 5.1	8:09 1.2	14:09 4.9	20:30 0.7
	S	17	2:50 5.3	9:05 1.1	15:03 4.9	21:21 0.6
	S	18	3:41 5.6	10:00 0.8	15:57 5.0	22:10 0.4
	M	19	4:31 5.8	10:53 0.6	16:50 5.1	23:00 0.2
	Tu	20	5:20 6.1	11:44 0.3	17:40 5.3	23:47 0.0
	W	21	6:08 6.5	12:30 0.0	18:29 5.5	. . . . . .
○ N	Th	22	0:34 —0.2	6:55 6.7	13:17 —0.2	19:15 5.6
	F	23	1:20 —0.3	7:41 6.9	14:03 —0.3	20:01 5.8
	S	24	2:06 —0.4	8:27 6.9	14:49 —0.4	20:47 5.8
	S	25	2:54 —0.3	9:15 6.8	15:35 —0.4	21:35 5.8
	M	26	3:42 —0.2	10:02 6.6	16:24 —0.3	22:25 5.8
P	Tu	27	4:35 0.0	10:52 6.3	17:14 —0.2	23:20 5.8
	W	28	5:31 0.2	11:46 6.0	18:05 —0.1	. . . . . .
E ☾	Th	29	0:19 5.8	6:32 0.3	12:42 5.8	19:02 0.0
	F	30	1:20 5.9	7:37 0.4	13:44 5.6	20:01 0.0
	S	31	2:24 6.0	8:44 0.4	14:48 5.5	21:02 —0.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	0:58	7:37	12:16	18:56
			—0.4	0.9	0.2	1.8
N ○	S	2	1:45	8:21	13:04	19:42
			—0.5	0.9	0.2	1.9
	S	3	2:30	9:08	13:57	20:30
			—0.5	0.9	0.1	1.9
P	M	4	3:15	9:48	14:45	21:20
			—0.6	1.0	0.1	1.8
	Tu	5	3:59	10:30	15:37	22:20
			—0.5	1.1	0.0	1.7
	W	6	4:40	11:12	16:32	23:05
			—0.4	1.1	0.0	1.5
	Th	7	5:24	12:00	17:32	. . .
			—0.3	1.2	0.0	. . .
E	F	8	0:04	6:10	12:52	18:39
			1.3	—0.1	1.2	0.0
☾	S	9	1:12	7:00	13:50	19:49
			1.2	0.0	1.3	0.0
	S	10	2:17	7:55	14:50	21:07
			1.1	0.1	1.3	0.0
	M	11	3:44	8:50	15:52	22:27
			0.9	0.2	1.4	—0.1
	Tu	12	4:43	9:48	16:51	23:32
			0.9	0.2	1.5	—0.2
	W	13	5:58	10:44	17:44	. . .
			0.9	0.3	1.6	. . .
	Th	14	0:30	6:51	11:44	18:32
			—0.3	0.9	0.3	1.6
S	F	15	1:18	7:42	12:30	19:16
			—0.3	0.9	0.3	1.7
	S	16	2:00	8:26	13:20	19:58
			—0.4	1.0	0.2	1.6
●	S	17	2:37	9:08	14:00	20:37
			—0.4	1.0	0.2	1.6
	M	18	3:10	9:45	14:38	21:10
			—0.3	1.0	0.2	1.5
A	Tu	19	3:38	10:20	15:15	21:42
			—0.3	1.0	0.2	1.4
	W	20	4:06	10:50	15:50	22:10
			—0.2	1.0	0.2	1.3
	Th	21	4:32	11:15	16:32	22:44
			—0.1	1.0	0.2	1.2
E	F	22	5:06	11:43	17:17	23:27
			—0.1	1.1	0.2	1.1
	S	23	5:43	12:16	18:10	. . .
			0.0	1.1	0.2	. . .
	S	24	0:15	6:20	12:56	19:07
			1.0	0.1	1.2	0.1
☽	M	25	1:20	7:04	13:42	20:14
			0.8	0.2	1.2	0.1
	Tu	26	2:47	7:53	14:43	21:27
			0.7	0.2	1.3	0.0
	W	27	4:16	8:50	15:47	22:40
			0.7	0.2	1.4	—0.1
	Th	28	5:27	9:55	16:54	23:44
			0.7	0.2	1.5	—0.3
N	F	29	6:26	10:57	17:50	. . .
			0.8	0.2	1.7	. . .
	S	30	0:38	7:15	11:57	18:45
			—0.4	0.9	0.1	1.8
	S	31	1:30	8:00	12:54	19:36
			—0.5	1.0	0.0	1.8

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○	M	1	2:13	8:41	13:47	20:27
P			—0.5	1.1	—0.1	1.8
	Tu	2	2:56	9:19	14:38	21:15
			—0.5	1.1	—0.1	1.8
	W	3	3:37	9:58	15:30	22:05
			—0.4	1.2	—0.1	1.6
E	Th	4	4:17	10:40	16:23	22:55
			—0.3	1.3	—0.1	1.4
	F	5	4:57	11:25	17:17	23:51
			—0.2	1.3	—0.2	1.3
	S	6	5:38	12:14	18:17	. . .
			—0.1	1.3	—0.1	. . .
	S	7	0:54	6:22	13:08	19:25
			1.1	0.1	1.4	0.0
☾	M	8	2:06	7:15	14:12	20:43
			0.9	0.2	1.4	0.0
	Tu	9	3:25	8:10	15:20	22:02
			0.8	0.2	1.4	—0.1
	W	10	4:36	9:15	16:23	23:10
			0.8	0.3	1.4	—0.1
S	Th	11	5:37	10:20	17:20	. . .
			0.8	0.3	1.5	. . .
	F	12	0:07	6:32	11:27	18:12
			—0.2	0.8	0.3	1.5
	S	13	0:55	7:18	12:22	19:00
			—0.2	0.9	0.3	1.5
	S	14	1:37	8:01	13:07	19:42
			—0.2	1.0	0.2	1.5
A	M	15	2:10	8:40	13:48	20:20
			—0.2	1.0	0.2	1.5
●	Tu	16	2:38	9:11	14:25	20:54
			—0.2	1.1	0.1	1.4
	W	17	3:05	9:37	14:58	21:26
			—0.2	1.1	0.1	1.4
	Th	18	3:30	10:00	15:32	21:55
			—0.1	1.1	0.0	1.3
E	F	19	4:00	10:22	16:10	22:29
			—0.1	1.2	0.0	1.2
	S	20	4:28	10:47	16:54	23:07
			0.0	1.2	0.0	1.1
	S	21	5:02	11:18	17:42	23:52
			0.0	1.2	0.0	0.9
	M	22	5:40	11:56	18:36	. . .
			0.1	1.3	0.0	. . .
	Tu	23	0:49	6:20	12:47	19:40
			0.8	0.1	1.3	0.0
☽	W	24	2:12	7:12	13:54	20:55
			0.7	0.2	1.3	0.0
	Th	25	3:48	8:17	15:12	22:13
			0.7	0.2	1.4	—0.1
N	F	26	5:04	9:30	16:28	23:20
			0.7	0.2	1.5	—0.2
	S	27	6:00	10:43	17:37	. . .
			0.8	0.2	1.6	. . .
	S	28	0:15	6:48	11:48	18:36
			—0.3	0.9	0.0	1.7
	M	29	1:06	7:30	12:47	19:30
			—0.3	1.0	—0.1	1.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MARCH.			
P ○	Tu	1	1:48	8:10	13:40	20:20
			—0.3	1.2	—0.2	1.7
	W	2	2:30	8:48	14:30	21:10
			—0.3	1.3	—0.3	1.7
E	Th	3	3:08	9:28	15:20	21:57
			—0.3	1.4	—0.3	1.5
	F	4	3:48	10:07	16:09	22:46
			—0.2	1.4	—0.3	1.4
	S	5	4:27	10:50	17:02	23:38
			—0.1	1.5	—0.3	1.2
	S	6	5:07	11:40	17:57	. . .
			0.0	1.5	—0.2	. . .
	M	7	0:36	5:48	12:30	19:02
			1.0	0.1	1.4	—0.1
☾	Tu	8	1:45	6:35	13:32	20:10
			0.9	0.2	1.4	—0.1
S	W	9	3:00	7:30	14:42	21:26
			0.8	0.3	1.3	0.0
	Th	10	4:10	8:45	15:52	22:38
			0.7	0.4	1.3	0.0
	F	11	5:10	10:04	16:55	23:35
			0.8	0.4	1.3	0.0
	S	12	6:05	11:10	17:50	. . .
			0.8	0.4	1.3	. . .
	S	13	0:22	6:50	12:06	18:40
			0.0	1.0	0.3	1.4
A	M	14	1:00	7:28	12:52	19:22
			—0.1	1.0	0.2	1.4
	Tu	15	1:32	8:02	13:31	20:02
			—0.1	1.1	0.1	1.4
●	W	16	2:00	8:29	14:05	20:37
			—0.1	1.1	0.0	1.3
E	Th	17	2:28	8:54	14:37	21:10
			0.0	1.2	—0.1	1.3
	F	18	2:56	9:14	15:12	21:44
			0.0	1.2	—0.1	1.2
	S	19	3:24	9:40	15:50	22:18
			0.0	1.3	—0.2	1.1
	S	20	3:53	10:01	16:31	22:57
			0.0	1.3	—0.2	1.0
	M	21	4:25	10:36	17:18	23:40
			0.1	1.4	—0.2	0.9
	Tu	22	5:04	11:17	18:14	. . .
			0.1	1.4	—0.2	. . .
	W	23	0:37	5:48	12:10	19:16
			0.8	0.2	1.4	—0.1
N ☽	Th	24	2:00	6:44	13:19	20:27
			0.7	0.2	1.4	—0.1
	F	25	3:26	7:55	14:48	21:42
			0.7	0.2	1.3	0.0
	S	26	4:35	9:18	16:15	22:52
			0.7	0.2	1.4	—0.1
	S	27	5:30	10:36	17:26	23:47
			0.9	0.1	1.5	—0.1
	M	28	6:15	11:42	18:26	. . .
			1.0	0.0	1.5	. . .
P	Tu	29	0:37	6:57	12:38	19:21
			—0.1	1.2	—0.2	1.5
E	W	30	1:19	7:37	13:30	20:10
			—0.2	1.3	—0.3	1.6
○	Th	31	2:00	8:18	14:24	21:00
			—0.1	1.5	—0.4	1.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:40	8:56	15:10	21:47		S	1	2:45	9:10	15:47	22:25		W	1	3:37	10:12	16:53	23:42
			—0.1	1.6	—0.5	1.4				0.1	1.7	—0.5	1.1				0.2	1.5	—0.3	0.9
	S	2	3:17	9:37	15:58	22:34		M	2	3:22	9:55	16:30	23:12		Th	2	4:21	10:50	17:30	. . .
			—0.1	1.6	—0.5	1.2				0.1	1.7	—0.4	1.0				0.3	1.4	—0.2	. . .
	S	3	3:52	10:18	16:46	23:25	S	Tu	3	4:00	10:34	17:17	. . .		F	3	0:30	5:09	11:32	18:12
			0.0	1.6	—0.4	1.1				0.2	1.5	—0.3	. . .				0.9	0.3	1.2	—0.1
	M	4	4:30	11:02	17:36	. . .		W	4	0:02	4:42	11:17	18:02		S	4	1:18	6:06	12:24	18:52
			0.1	1.5	—0.4	. . .				0.9	0.3	1.4	—0.2				0.9	0.4	1.1	0.0
	Tu	5	0:22	5:12	11:52	18:33		Th	5	1:00	5:30	12:10	18:55	A	S	5	2:10	7:10	13:30	19:37
			0.9	0.2	1.4	—0.2				0.9	0.3	1.3	0.1				0.9	0.4	1.0	0.1
S	W	6	1:23	6:01	12:50	19:33		F	6	2:02	6:34	13:13	19:47		M	6	3:00	8:19	14:44	20:30
			0.8	0.3	1.3	0.0				0.8	0.4	1.1	0.0				1.0	0.4	0.9	0.2
☾	Th	7	2:35	7:02	14:02	20:40	☾	S	7	3:02	7:46	14:28	20:44		Tu	7	3:45	9:30	15:58	21:20
			0.8	0.4	1.2	0.0				0.9	0.4	1.0	0.1				1.0	0.3	0.8	0.2
	F	8	3:40	8:17	15:18	21:48	A	S	8	3:56	9:07	15:42	21:40		W	8	4:28	10:30	17:02	22:13
			0.8	0.4	1.2	0.1				0.9	0.4	1.0	0.2				1.2	0.1	0.9	0.2
	S	9	4:40	9:42	16:22	22:46		M	9	4:44	10:14	16:42	22:27		Th	9	5:10	11:25	18:00	23:00
			0.9	0.4	1.2	0.1				1.0	0.3	1.0	0.2				1.3	0.0	0.9	0.2
A	S	10	5:30	10:50	17:21	23:34	E	Tu	10	5:24	11:10	17:40	23:10		F	10	5:40	12:14	18:52	23:44
			0.9	0.4	1.2	0.1				1.1	0.1	1.0	0.2				1.4	—0.2	0.9	0.2
	M	11	6:11	11:43	18:12	. . .		W	11	6:00	11:57	18:30	23:53		S	11	6:22	13:00	19:40	. . .
			1.0	0.2	1.2	. . .				1.2	0.0	1.1	0.2				1.5	—0.3	1.0	. . .
	Tu	12	0:12	6:47	12:27	18:57		Th	12	6:32	12:40	19:15	. . .		S	12	0:26	7:00	13:48	20:23
			0.0	1.1	0.1	1.2				1.3	—0.1	1.1	. . .				0.2	1.7	—0.5	1.0
E	W	13	0:46	7:17	13:05	19:37		F	13	0:30	7:02	13:20	19:58	●	M	13	1:07	7:36	14:26	21:08
			0.0	1.2	—0.1	1.2				0.2	1.4	—0.3	1.1				0.2	1.7	—0.5	1.0
	Th	14	1:19	7:46	13:41	20:17		S	14	1:06	7:32	14:00	20:38	N	Tu	14	1:50	8:18	15:10	21:47
			0.0	1.3	—0.2	1.2				0.2	1.5	—0.4	1.1				0.1	1.8	—0.6	1.0
●	F	15	1:48	8:10	14:17	20:54	●	S	15	1:38	8:00	14:40	21:20		W	15	2:33	9:04	15:52	22:29
			0.0	1.3	—0.3	1.2				0.2	1.6	—0.5	1.0				0.1	1.8	—0.5	1.0
	S	16	2:16	8:34	14:52	21:32		M	16	2:14	8:35	15:20	22:00		Th	16	3:20	9:52	16:37	23:10
			0.1	1.4	—0.3	1.1				0.1	1.7	—0.5	0.9				0.1	1.7	—0.5	1.0
	S	17	2:50	9:00	15:32	22:10	N	Tu	17	2:52	9:11	16:04	22:42	P	F	17	4:12	10:40	17:22	23:57
			0.1	1.5	—0.4	1.0				0.1	1.7	—0.5	0.9				0.1	1.6	—0.3	1.0
	M	18	3:18	9:30	16:17	22:50		W	18	3:32	9:54	16:51	23:30		S	18	5:12	11:40	18:09	. . .
			0.1	1.5	—0.4	1.7				0.1	1.7	—0.4	0.9				0.1	1.4	—0.2	. . .
	Tu	19	3:52	10:08	17:04	23:38		Th	19	4:20	10:43	17:42	. . .		S	19	0:50	6:16	12:46	19:00
			0.1	1.6	—0.3	0.9				0.1	1.6	—0.3	. . .				1.0	0.1	1.3	—0.1
N	W	20	4:37	10:54	17:57	. . .		F	20	0:24	5:17	11:42	18:34	☽	M	20	1:48	7:30	14:07	19:56
			0.1	1.5	—0.3	. . .				0.9	0.2	1.5	—0.2	E			1.1	0.1	1.1	0.0
	Th	21	0:35	5:25	11:54	18:54		S	21	1:24	6:21	12:54	19.32		Tu	21	2:48	8:46	15:26	20:54
			0.8	0.2	1.5	—0.2				0.9	0.2	1.3	—0.1				1.2	0.0	1.0	0.2
☽	F	22	1:44	6:28	13:02	20:00	☽	S	22	2:24	7:40	14:20	20:33		W	22	3:46	10:07	16:44	21:54
			0.7	0.2	1.3	—0.1	P			1.0	0.2	1.2	0.0				1.3	—0.1	1.0	0.2
	S	23	2:57	7:48	14:34	21:10		M	23	3:24	9:00	15:46	21:34		Th	23	4:43	11:18	17:50	22:51
			0.8	0.2	1.3	0.0				1.1	0.1	1.1	0.1				1.5	—0.2	1.0	0.2
	S	24	4:02	9:10	16:02	22:15	E	Tu	24	4:20	10:20	16:58	22:33		F	24	5:37	12:18	18:45	23:42
			0.9	0.2	1.3	0.0				1.2	0.0	1.1	0.1				1.6	—0.3	1.0	0.2
	M	25	4:55	10:27	17:12	23:13		W	25	5:12	11:27	18:04	23:30		S	25	6:26	13:10	19:36	. . .
			1.0	0.1	1.3	0.0				1.4	—0.2	1.1	0.2				1.7	—0.4	1.0	. . .
P	Tu	26	5:42	11:35	18:14	. . .		Th	26	6:00	12:27	19:00	. . .		S	26	0:30	7:15	13:57	20:24
			1.2	—0.1	1.3	. . .				1.5	—0.3	1.1	. . .				0.2	1.7	—0.5	1.0
E	W	27	0:02	6:27	12:32	19:10		F	27	0:13	6:46	13:20	19:52	S	M	27	1:16	7:57	14:40	21:10
			0.0	1.3	—0.3	1.3				0.1	1.7	—0.5	1.1	○			0.2	1.7	—0.5	1.0
	Th	28	0:48	7:12	13:25	20:02		S	28	0:56	7:29	14:08	20:40		Tu	28	2:00	8:39	15:19	21:52
			0.0	1.5	—0.4	1.3				0.1	1.7	—0.5	1.1				0.2	1.7	—0.4	1.0
○	F	29	1:30	7:50	14:15	20:52	○	S	29	1:37	8:11	14:53	21:25		W	29	2:42	9:17	15:53	22:33
			0.0	1.6	—0.5	1.3				0.2	1.8	—0.5	1.0				0.2	1.6	—0.4	1.0
	S	30	2:07	8:31	15:00	21:38	S	M	30	2:19	8:51	15:32	22:10		Th	30	3:21	9:54	16:27	23:13
			0.0	1.7	—0.6	1.2				0.1	1.7	—0.5	1.0				0.2	1.5	—0.3	1.0
								Tu	31	2:58	9:32	16:14	22:55							
										0.2	1.7	—0.4	1.0							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:05 0.2	10:26 1.3	16:57 —0.2	23:48 1.0	
A	S	2	4:48 0.3	11:02 1.2	17:30 —0.1	. . . . . .	
	S	3	0:25 1.0	5:35 0.3	11:43 1.1	18:02 0.0	
E	M	4	1:05 1.0	6:27 0.3	12:40 0.9	18:45 0.1	
☾	Tu	5	1:47 1.0	7:28 0.3	13:40 0.8	19:30 0.2	
	W	6	2:34 1.1	8:34 0.2	15:02 0.8	20:20 0.2	
	Th	7	3:23 1.2	9:42 0.1	16:22 0.7	21:12 0.2	
	F	8	4:14 1.3	10:50 0.0	17:32 0.8	22:10 0.2	
	S	9	5:05 1.5	11:49 —0.2	18:30 0.8	22:59 0.2	
	S	10	5:49 1.6	12:40 —0.3	19:17 0.8	23:52 0.2	
N	M	11	6:37 1.7	13:25 —0.5	20:05 0.9	. . . . . .	
●	Tu	12	0:46 0.2	7:25 1.8	14:12 —0.5	20:47 1.0	
	W	13	1:35 0.0	8:10 1.8	14:54 —0.5	21:25 1.0	
P	Th	14	2:25 0.0	8:58 1.8	15:36 —0.5	22:04 1.1	
	F	15	3:14 0.0	9:49 1.7	16:17 —0.4	22:44 1.1	
	S	16	4:06 0.0	10:36 1.6	16:59 —0.3	23:30 1.2	
E	S	17	5:02 0.0	11:32 1.4	17:40 —0.2	. . . . . .	
	M	18	0:16 1.2	6:02 0.0	12:36 1.2	18:28 0.0	
☽	Tu	19	1:13 1.3	7:12 0.0	13:50 1.0	19:16 0.1	
	W	20	2:12 1.3	8:29 0.0	15:07 0.9	20:14 0.2	
	Th	21	3:14 1.4	9:47 —0.1	16:27 0.8	21:12 0.2	
	F	22	4:17 1.5	11:04 —0.2	17:32 0.8	22:15 0.3	
	S	23	5:17 1.6	12:06 —0.2	18:27 0.8	23:17 0.3	
S	S	24	6:10 1.6	13:00 —0.3	19:17 0.8	. . . . . .	
	M	25	0:12 0.2	7:00 1.7	13:43 —0.3	20:04 0.9	
	Tu	26	1:02 0.2	7:44 1.6	14:22 —0.3	20:47 0.9	
○	W	27	1:49 0.2	8:26 1.6	14:57 —0.3	21:27 1.0	
	Th	28	2:30 0.2	9:02 1.5	15:28 —0.2	22:02 1.0	
	F	29	3:10 0.2	9:38 1.4	15:54 —0.2	22:33 1.0	
A	S	30	3:43 0.2	10:07 1.3	16:20 —0.1	23:00 1.1	
	S	31	4:25 0.1	10:40 1.2	16:50 —0.1	23:28 1.1	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	5:04 0.1	11:15 1.0	17:22 0.0	23:57 1.1	
	Tu	2	5:52 0.1	12:00 1.0	17:58 0.1	. . . . . .	
	W	3	0:32 1.2	6:44 0.1	12:55 0.8	18:37 0.2	
☾	Th	4	1:14 1.2	7:46 0.1	14:08 0.7	19:27 0.2	
	F	5	2:15 1.3	8:58 0.0	15:47 0.6	20:20 0.3	
	S	6	3:20 1.3	10:12 0.0	17:05 0.7	21:27 0.3	
	S	7	4:30 1.5	11:18 —0.2	18:05 0.7	22:35 0.3	
N	M	8	5:27 1.6	12:17 —0.3	18:52 0.7	23:32 0.2	
	Tu	9	6:24 1.7	13:05 —0.3	19:38 0.9	. . . . . .	
	W	10	0:32 0.0	7:15 1.8	13:51 —0.4	20:17 1.0	
●	Th	11	1:27 0.0	8:05 1.8	14:32 —0.4	20:57 1.1	
P	F	12	2:15 —0.1	8:50 1.7	15:12 —0.4	21:30 1.2	
	S	13	3:06 —0.2	9:40 1.6	15:50 —0.3	22:10 1.3	
E	S	14	3:57 —0.2	10:30 1.5	16:32 —0.2	22:54 1.3	
	M	15	4:50 —0.2	11:25 1.3	17:12 —0.1	23:40 1.4	
	Tu	16	5:47 —0.2	12:22 1.1	17:55 0.0	. . . . . .	
☽	W	17	0:34 1.4	6:52 —0.1	13:31 0.9	18:42 0.1	
	Th	18	1:35 1.4	8:08 —0.1	14:47 0.8	19:37 0.2	
	F	19	2:45 1.4	9:25 —0.1	16:07 0.7	20:42 0.3	
S	S	20	3:52 1.4	10:44 —0.1	17:12 0.7	21:54 0.4	
	S	21	4:56 1.5	11:44 —0.1	18:07 0.7	23:07 0.3	
	M	22	5:52 1.5	12:36 —0.2	18:57 0.8	. . . . . .	
	Tu	23	0:07 0.2	6:42 1.5	13:19 —0.2	19:40 1.0	
	W	24	1:00 0.2	7:28 1.5	13:55 —0.2	20:22 1.0	
○	Th	25	1:40 0.1	8:12 1.5	14:22 —0.2	20:55 1.1	
A	F	26	2:17 0.1	8:48 1.4	14:54 —0.1	21:22 1.1	
	S	27	2:52 0.1	9:22 1.3	15:21 —0.1	21:50 1.1	
E	S	28	3:23 0.0	9:52 1.2	15:44 —0.1	22:10 1.2	
	M	29	4:00 0.0	10:23 1.2	16:12 0.0	22:35 1.2	
	Tu	30	4:37 0.0	10:55 1.1	16:44 0.0	23:00 1.2	
	W	31	5:23 0.0	11:35 0.9	17:15 0.1	23:30 1.3	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	6:12 0.0	12:24 0.8	17:55 0.2	. . . . . .	
☾	F	2	0:16 1.3	7:12 0.0	13:40 0.7	18:45 0.2	
	S	3	1:15 1.3	8:20 0.0	15:18 0.7	19:48 0.3	
N	S	4	2:35 1.3	9:37 0.0	16:35 0.7	20:57 0.3	
	M	5	3:56 1.4	10:50 —0.1	17:35 0.8	22:12 0.3	
	Tu	6	5:09 1.5	11:48 —0.2	18:22 0.9	23:22 0.1	
	W	7	6:12 1.6	12:40 —0.2	19:05 1.0	. . . . . .	
	Th	8	0:23 0.0	7:07 1.7	13:22 —0.2	19:48 1.2	
P ●	F	9	1:18 —0.2	7:57 1.7	14:05 —0.2	20:22 1.3	
E	S	10	2:07 —0.3	8:47 1.6	14:45 —0.2	21:01 1.4	
	S	11	2:55 —0.4	9:35 1.5	15:24 —0.2	21:40 1.5	
	M	12	3:45 —0.4	10:22 1.4	16:00 —0.1	22:22 1.5	
	Tu	13	4:36 —0.4	11:12 1.2	16:40 0.0	23:09 1.5	
	W	14	5:31 —0.3	12:09 1.0	17:22 0.1	23:57 1.5	
	Th	15	6:31 —0.2	13:12 0.9	18:08 0.2	. . . . . .	
☽	F	16	0:58 1.4	7:39 —0.1	14:30 0.8	19:06 0.3	
S	S	17	2:10 1.3	8:53 0.0	15:43 0.7	20:17 0.4	
	S	18	3:25 1.3	10:10 0.0	16:45 0.7	21:37 0.4	
	M	19	4:32 1.3	11:12 0.0	17:40 0.9	22:54 0.3	
	Tu	20	5:31 1.3	12:02 0.0	18:27 1.0	23:54 0.2	
	W	21	6:25 1.3	12:42 0.0	19:09 1.0	. . . . . .	
	Th	22	0:41 0.1	7:10 1.3	13:18 0.0	19:44 1.1	
A	F	23	1:20 0.0	7:52 1.3	13:47 0.0	20:14 1.2	
○ E	S	24	1:56 0.0	8:28 1.3	14:17 0.0	20:43 1.2	
	S	25	2:28 —0.1	9:02 1.2	14:40 0.0	21:02 1.2	
	M	26	3:01 —0.2	9:36 1.2	15:07 0.1	21:22 1.3	
	Tu	27	3:36 —0.2	10:10 1.1	15:34 0.1	21:46 1.3	
	W	28	4:14 —0.2	10:42 1.0	16:05 0.1	22:15 1.4	
	Th	29	5:00 —0.2	11:22 0.9	16:40 0.2	22:52 1.4	
	F	30	5:47 —0.2	12:13 0.7	17:24 0.2	23:40 1.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	6:45	13:22	18:13	. . .
			—0.1	0.7	0.2	. . .
☾	S	2	0:42	7:50	14:45	19:21
			1.4	—0.1	0.7	0.3
	M	3	2:07	9:05	16:02	20:42
			1.3	0.0	0.7	0.3
	Tu	4	3:35	10:14	16:58	22:05
			1.3	0.0	0.9	0.2
	W	5	4:56	11:16	17:45	23:17
			1.4	0.0	1.0	0.0
	Th	6	6:00	12:05	18:30	. . .
			1.4	—0.1	1.2	. . .
	F	7	0:12	6:56	12:52	19:12
			—0.2	1.5	—0.1	1.3
P	S	8	1:07	7:47	13:37	19:50
E			—0.3	1.5	—0.1	1.5
●	S	9	1:59	8:38	14:15	20:32
			—0.5	1.4	—0.1	1.6
	M	10	2:47	9:25	14:52	21:11
			—0.5	1.4	0.0	1.6
	Tu	11	3:36	10:14	15:30	21:54
			—0.5	1.2	0.0	1.7
	W	12	4:23	11:02	16:07	22:38
			—0.5	1.1	0.1	1.6
	Th	13	5:15	11:57	16:50	23:27
			—0.4	1.0	0.2	1.5
S	F	14	6:08	12:58	17:40	. . .
			—0.2	0.9	0.3	. . .
☽	S	15	0:26	7:08	14:05	18:40
			1.4	—0.1	0.8	0.4
	S	16	1:36	8:17	15:12	19:55
			1.3	0.0	0.8	0.4
	M	17	2:52	9:20	16:15	21:18
			1.1	0.1	0.9	0.4
	Tu	18	4:00	10:22	17:07	22:35
			1.1	0.1	1.0	0.3
	W	19	5:04	11:12	17:50	23:32
			1.1	0.1	1.0	0.2
A	Th	20	5:57	11:55	18:28	. . .
			1.1	0.1	1.1	. . .
E	F	21	0:20	6:47	12:29	19:01
			0.1	1.1	0.1	1.2
	S	22	0:59	7:30	13:03	19:32
			0.0	1.2	0.1	1.3
	S	23	1:34	8:08	13:34	19:54
			—0.1	1.2	0.1	1.3
○	M	24	2:08	8:46	14:00	20:22
			—0.2	1.1	0.1	1.4
	Tu	25	2:42	9:21	14:28	20:47
			—0.3	1.0	0.1	1.5
	W	26	3:24	9:57	14:59	21:13
			—0.4	1.0	0.1	1.5
	Th	27	4:00	10:36	15:32	21:46
			—0.4	0.9	0.2	1.5
	F	28	4:43	11:18	16:15	22:29
			—0.3	0.8	0.2	1.5
N	S	29	5:29	12:10	17:02	23:19
			—0.3	0.7	0.2	1.5
	S	30	6:24	13:10	17:57	. . .
			—0.2	0.8	0.3	. . .
☾	M	31	0:22	7:24	14:20	19:10
			1.3	—0.1	0.8	0.3

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	1:47	8:30	15:24	20:32
			1.3	0.0	0.9	0.2
	W	2	3:20	9:34	16:20	21:53
			1.2	0.0	1.0	0.1
	Th	3	4:40	10:36	17:11	23:04
			1.2	0.0	1.2	—0.1
E	F	4	5:46	11:29	18:00	. . .
			1.2	0.0	1.3	. . .
P	S	5	0:06	6:45	12:18	18:42
			—0.3	1.2	0.0	1.5
	S	6	1:00	7:38	13:00	19:26
			—0.4	1.0	0.1	1.6
●	M	7	1:52	8:18	13:42	20:07
			—0.5	1.2	0.1	1.7
	Tu	8	2:40	9:17	14:20	20:50
			—0.6	1.2	0.1	1.8
	W	9	3:25	10:05	15:00	21:32
			—0.6	1.1	0.1	1.7
S	Th	10	4:11	10:52	15:42	22:17
			—0.5	1.0	0.2	1.6
	F	11	4:58	11:42	16:27	23:00
			—0.4	1.0	0.2	1.5
	S	12	5:46	12:39	17:16	23:55
			—0.3	0.9	0.3	1.3
	S	13	6:36	13:35	18:18	. . .
			—0.1	0.9	0.4	. . .
☽	M	14	0:59	7:27	14:34	19:30
			1.2	0.0	0.9	0.4
	Tu	15	2:10	8:20	15:30	20:48
			1.0	0.1	1.0	0.4
	W	16	3:20	9:15	16:20	22:00
			1.0	0.1	1.0	0.3
A	Th	17	4:27	10:05	17:04	23:00
			1.0	0.2	1.1	0.2
E	F	18	5:25	10:52	17:43	23:48
			1.0	0.2	1.2	0.0
	S	19	6:17	11:36	18:17	. . .
			1.0	0.2	1.3	. . .
	S	20	0:32	7:04	12:11	18:50
			—0.1	1.0	0.2	1.4
	M	21	1:10	7:48	12:47	19:20
			—0.2	1.0	0.2	1.5
○	Tu	22	1:50	8:30	13:22	19:46
			—0.3	1.0	0.2	1.6
	W	23	2:27	9:09	13:55	20:18
			—0.4	0.9	0.2	1.6
	Th	24	3:06	9:46	14:31	20:52
			—0.5	0.8	0.2	1.7
N	F	25	3:47	10:25	15:10	21:32
			—0.5	0.8	0.2	1.7
	S	26	4:30	11:08	15:57	22:16
			—0.4	0.8	0.2	1.6
	S	27	5:17	11:55	16:50	23:12
			—0.3	0.8	0.2	1.5
	M	28	6:05	12:48	17:52	. . .
			—0.2	0.9	0.2	. . .
	Tu	29	0:18	6:55	13:44	19:00
			1.3	—0.1	0.9	0.2
☾	W	30	1:33	7:52	14:45	20:22
			1.2	0.0	1.1	0.1

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	3:02	8:54	15:44	21:40
			1.1	0.1	1.2	0.0
P	F	2	4:22	9:54	16:38	22:54
			1.0	0.2	1.3	—0.1
	S	3	5:32	10:50	17:30	23:58
			1.0	0.2	1.5	—0.3
	S	4	6:35	11:43	18:18	. . .
			1.0	0.2	1.6	. . .
	M	5	0:55	7:27	12:30	19:04
			—0.4	1.0	0.2	1.7
●	Tu	6	1:44	8:17	13:12	19:50
			—0.5	1.0	0.2	1.8
	W	7	2:32	9:04	13:56	20:33
			—0.6	1.0	0.2	1.8
S	Th	8	3:16	9:50	14:40	21:15
			—0.5	1.0	0.2	1.7
	F	9	3:58	10:35	15:22	21:58
			—0.5	1.0	0.2	1.6
	S	10	4:38	11:22	16:09	22:42
			—0.4	1.0	0.2	1.5
	S	11	5:18	12:08	16:57	23:26
			—0.2	1.0	0.3	1.3
	M	12	5:55	12:57	17:52	. . .
			—0.1	1.0	0.4	. . .
	Tu	13	0:17	6:37	13:44	18:55
			1.1	0.0	1.0	0.4
☽	W	14	1:23	7:18	14:35	20:02
A			1.0	0.1	1.0	0.4
E	Th	15	2:28	8:06	15:25	21:10
			0.8	0.2	1.1	0.3
	F	16	3:40	8:56	16:10	22:16
			0.8	0.3	1.1	0.2
	S	17	4:47	9:50	16:54	23:12
			0.8	0.3	1.2	0.0
	S	18	5:47	10:38	17:34	. . .
			0.8	0.3	1.4	. . .
	M	19	0:02	6:40	11:22	18:09
			—0.1	0.8	0.3	1.5
	Tu	20	0:46	7:27	12:06	18:45
			—0.3	0.8	0.3	1.6
	W	21	1:30	8:08	12:50	19:21
			—0.4	0.8	0.3	1.7
○	Th	22	2:10	8:52	13:32	20:02
N			—0.5	0.8	0.2	1.7
	F	23	2:52	9:30	14:15	20:44
			—0.5	0.9	0.2	1.7
	S	24	3:32	10:09	15:00	21:29
			—0.5	0.9	0.1	1.7
	S	25	4:14	10:47	15:48	22:18
			—0.4	0.9	0.1	1.6
	M	26	4:56	11:28	16:42	23:10
			—0.3	1.0	0.1	1.5
P	Tu	27	5:40	12:17	17:43	. . .
			—0.2	1.1	0.1	. . .
	W	28	0:11	6:27	13:08	18:50
			1.3	—0.1	1.1	0.1
E	Th	29	1:24	7:19	14:07	20:04
☾			1.1	0.0	1.2	0.1
	F	30	2:45	8:17	15:08	21:26
			1.0	0.2	1.3	0.0
	S	31	4:05	9:14	16:08	22:43
			0.9	0.2	1.4	—0.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	8:30	16:51		
			—0.4	1.1		
N	S	2	9:40	17:50		
○			—0.5	1.2		
	S	3	10:20	18:25	23:50	
			—0.5	1.2	0.9	
P	M	4	3:00	11:08	19:02	
			1.0	—0.4	1.1	
	Tu	5	0:38	4:06	11:58	19:40
			0.8	1.0	—0.3	1.1
	W	6	1:28	5:17	12:48	20:13
			0.7	0.9	—0.2	1.1
	Th	7	2:22	6:42	13:37	20:42
			0.6	0.7	0.0	1.0
E	F	8	3:16	8:21	14:30	21:17
			0.5	0.7	0.2	1.0
☾	S	9	4:01	10:01	15:45	21:51
			0.4	0.6	0.4	0.9
	S	10	4:55	11:40	16:50	22:32
			0.2	0.6	0.6	0.9
	M	11	5:47	13:22	17:57	23:05
			0.1	0.6	0.6	0.9
	Tu	12	6:38	14:51	19:17	23:34
			0.0	0.9	0.7	0.9
	W	13	7:27	16:00		
			—0.1	0.9		
	Th	14	8:13	16:51		
			—0.2	1.0		
S	F	15	8:56	17:34		
			—0.2	1.1		
	S	16	9:36	18:10		
			—0.2	1.1		
●	S	17	10:07	18:37		
			—0.2	1.1		
	M	18	10:42	18:52		
			—0.2	1.0		
A	Tu	19	11:15	19:12		
			—0.1	1.0		
	W	20	11:50	19:30		
			0.0	1.0		
	Th	21	12:38	20:07		
			0.0	1.0		
E	F	22	2:26	6:30	13:18	20:30
			0.5	0.5	0.2	0.7
	S	23	2:57	8:00	14:08	20:48
			0.5	0.6	0.3	0.9
	S	24	3:30	9:30	15:06	21:18
			0.4	0.7	0.5	0.9
☽	M	25	4:12	10:47	16:10	21:45
			0.3	0.5	0.5	0.9
	Tu	26	5:04	12:20	17:19	22:15
			0.1	0.8	0.6	0.9
	W	27	6:00	13:50	18:27	22:50
			—0.1	0.8	0.7	1.0
	Th	28	6:52	15:07	19:36	23:30
			—0.2	0.9	0.8	1.0
N	F	29	7:50	16:14	20:40	
			—0.3	1.0	0.9	
	S	30	0:27	8:43	17:05	21:30
			1.0	—0.4	1.0	0.9
	S	31	1:27	9:35	17:40	22:25
			1.0	—0.4	1.0	0.8

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○	M	1	2:32	10:27	18:09	23:11
P			1.0	—0.3	1.0	0.7
	Tu	2	3:39	11:16	18:37	
			1.0	—0.2	1.0	
	W	3	0:04	4:48	12:04	19:08
			0.5	0.9	—0.1	1.0
E	Th	4	0:55	6:00	12:52	19:40
			0.6	0.9	0.1	0.9
	F	5	1:47	7:17	13:40	20:09
			0.5	0.8	0.2	0.9
	S	6	2:35	8:41	14:42	20:45
			0.4	0.7	0.4	0.9
	S	7	3:38	10:00	15:37	21:23
			0.3	0.7	0.6	0.9
☾	M	8	4:27	11:47	16:38	21:57
			0.2	0.7	0.5	0.9
	Tu	9	5:25	13:37		
			0.1	0.8		
	W	10	6:22	14:30		
			0.0	0.9		
S	Th	11	6:43	15:20		
			0.0	0.9		
	F	12	7:30	16:05		
			—0.1	1.0		
	S	13	8:20	16:50		
			—0.1	1.0		
	S	14	8:57	17:12		
			—0.1	1.0		
A	M	15	9:38	17:30	23:05	
			—0.1	1.0	0.7	
●	Tu	16	2:27	10:13	17:47	23:40
			0.8	0.0	0.9	0.6
	W	17	3:22	10:50	18:06	
			0.8	0.0	0.9	
	Th	18	0:04	4:24	11:27	18:26
			0.6	0.8	0.1	0.9
E	F	19	0:28	5:27	12:06	18:44
			0.6	0.8	0.2	0.9
	S	20	0:47	6:35	12:47	19:07
			0.5	0.8	0.3	0.8
	S	21	1:20	7:35	13:37	19:31
			0.3	0.8	0.5	0.7
	M	22	2:03	8:52	14:36	19:52
			0.2	0.8	0.6	0.8
	Tu	23	3:00	10:14	15:48	20:20
			0.1	0.8	0.6	0.9
☽	W	24	3:58	11:40	17:00	20:58
			0.0	0.8	0.7	1.0
	Th	25	5:00	13:00	18:09	21:50
			—0.1	0.9	0.8	0.9
N	F	26	6:02	14:10	19:13	22:55
			—0.2	0.9	0.8	0.9
	S	27	7:02	15:05	20:02	
			—0.2	0.9	0.8	
	S	28	0:10	8:02	15:47	20:54
			0.9	—0.2	0.9	0.7
	M	29	1:26	9:00	16:20	21:40
			1.0	—0.1	0.9	0.5

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MARCH.			
P	Tu	1	2:40	9:52	16:52	22:25
○			0.8	0.0	1.0	0.7
	W	2	3:47	10:43	17:23	23:10
			0.8	0.1	1.0	0.6
E	Th	3	4:53	11:32	17:56	23:57
			0.6	0.1	1.2	0.4
	F	4	5:55	12:23	18:32	
			0.6	0.2	1.0	
	S	5	13:20	19:00		
			0.3	0.9		
	S	6	14:19	19:32		
			0.4	1.0		
	M	7	15:20	20:00		
			0.4	0.8		
☾	Tu	8	16:28	20:35		
			0.5	0.6		
S	W	9	17:50	21:15		
			0.4	0.6		
	Th	10	19:18	22:12		
			0.4	0.6		
	F	11	20:12	23:20		
			0.4	0.6		
	S	12	20:51			
			0.4			
A	S	13	0:28	7:47	15:33	21:21
			0.7	0.3	0.7	0.3
	M	14	1:28	8:33	16:00	21:42
			0.5	0.5	0.7	0.3
	Tu	15	2:21	9:17	16:20	22:07
			0.9	0.4	1.0	0.2
●	W	16	3:12	9:57	16:40	22:33
			0.9	0.3	1.0	0.2
E	Th	17	4:04	10:39	17:00	22:58
			0.9	0.2	1.0	0.2
	F	18	4:48	11:23	17:28	23:19
			0.9	0.2	1.0	0.1
	S	19	5:36	12:10	17:43	23:47
			0.9	0.2	1.0	0.1
	S	20	6:40	12:58	18:00	
			0.9	0.2	1.0	
	M	21	0:27	7:44	13:57	18:20
			0.1	0.9	0.2	1.0
	Tu	22	1:17	8:52	14:54	18:50
			0.1	1.0	0.3	1.0
	W	23	2:14	10:05	15:56	19:28
			0.2	1.0	0.6	1.0
N	Th	24	3:18	11:16	17:00	20:23
☽			0.2	0.9	0.7	1.0
	F	25	4:28	12:25	17:53	21:42
			0.2	0.8	0.7	0.9
	S	26	5:37	13:21	18:52	23:14
			0.2	0.9	0.7	0.9
	S	27	6:44	14:08	19:40	
			0.2	0.9	0.4	
	M	28	0:42	7:47	14:46	20:25
			0.8	0.3	0.9	0.2
P	Tu	29	2:00	8:48	15:20	21:08
			0.9	0.4	0.9	0.3
E	W	30	3:00	9:43	15:56	21:52
			0.9	0.3	0.9	0.2
○	Th	31	4:00	10:39	16:26	22:27
			0.9	0.4	1.0	0.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:05	11:37	16:54	23:08			S	1	16:00	23:30	. . . . .				W	1	7:39	. . . . .	. . . . .	. . . . .	
			0.9	0.6	1.0	0.1					0.8	0.2	. . . . .						0.8	. . . . .	. . . . .	. . . . .	
	S	2	6:06	12:27	17:21	23:54			M	2	16:18	. . . . .	. . . . .	. . . . .			Th	2	0:24	8:45	. . . . .	. . . . .	
			0.9	0.6	1.0	0.1					0.8	. . . . .	. . . . .	. . . . .					0.2	0.8	. . . . .	. . . . .	
	S	3	7:07	13:23	17:47	. . .		S	Tu	3	0:12	8:15	14:30	16:42			F	3	1:07	9:22	. . . . .	. . . . .	
			0.8	0.7	0.9	. . .					0.3	0.6	0.7	0.8					0.3	0.9	. . . . .	. . . . .	
	M	4	0:42	8:10	14:18	18:14			W	4	0:57	9:07	16:00	17:12			S	4	1:47	9:55	. . . . .	. . . . .	
			0.1	0.8	0.7	0.8					0.3	0.6	0.5	0.5					0.3	0.9	. . . . .	. . . . .	
	Tu	5	1:31	9:15	. . . . .	. . . . .			Th	5	1:27	9:40	17:25	18:17		A	S	5	2:35	10:24	. . . . .	. . . . .	
			0.1	0.8	. . . . .	. . . . .					0.4	0.7	0.5	0.6		☾			0.4	0.9	. . . . .	. . . . .	
S	W	6	2:22	10:20	. . . . .	. . . . .			F	6	2:38	10:47	18:20	19:47			M	6	3:30	10:51	. . . . .	. . . . .	
			0.2	0.9	. . . . .	. . . . .					0.5	0.7	0.5	0.6					0.5	0.9	. . . . .	. . . . .	
☾	Th	7	3:17	11:25	. . . . .	. . . . .		☾	S	7	3:32	11:25	18:41	21:53		E	Tu	7	4:46	11:16	18:22	. . .	
			0.2	0.8	. . . . .	. . . . .					0.5	0.6	0.5	0.6					0.6	1.0	0.5	. . .	
	F	8	4:22	12:25	. . . . .	. . . . .		A	S	8	4:29	12:03	. . . . .	. . . . .			W	8	0:38	6:00	11:58	18:54	
			0.3	0.8	. . . . .	. . . . .					0.6	0.8	. . . . .	. . . . .					0.8	0.6	1.0	0.3	
	S	9	5:22	13:07	19:39	23:40			M	9	5:31	12:03	. . . . .	. . . . .			Th	9	1:46	7:07	12:15	19:27	
			0.4	0.7	0.3	1.0					0.6	0.9	. . . . .	. . . . .					0.8	0.6	1.0	0.2	
A	S	10	6:20	13:45	20:09	. . .		E	Tu	10	13:00	. . . . .	. . . . .	. . . . .			F	10	2:47	8:05	12:33	20:05	
			0.3	0.8	0.2	. . .					0.9	. . . . .	. . . . .	. . . . .					0.7	0.6	1.0	0.2	
	M	11	0:52	7:15	14:15	20:34			W	11	13:41	20:37	. . . . .	. . . . .			S	11	12:50	20:42	. . . . .	. . . . .	
			1.0	0.4	0.8	0.2					0.9	0.3	. . . . .	. . . . .					0.9	0.1	. . . . .	. . . . .	
	Tu	12	1:50	8:07	14:42	20:57			Th	12	14:00	20:37	. . . . .	. . . . .			S	12	13:15	21:26	. . . . .	. . . . .	
			0.7	0.6	0.9	0.2					0.9	0.2	. . . . .	. . . . .					0.9	0.0	. . . . .	. . . . .	
E	W	13	2:47	9:00	15:12	21:20			F	13	14:15	21:09	. . . . .	. . . . .		●	M	13	13:47	22:09	. . . . .	. . . . .	
			0.5	0.6	0.9	0.2					0.8	0.2	. . . . .	. . . . .					0.9	0.0	. . . . .	. . . . .	
	Th	14	15:37	21:38	. . . . .	. . . . .			S	14	14:27	21:46	. . . . .	. . . . .		N	Tu	14	14:36	22:54	. . . . .	. . . . .	
			0.8	0.2	. . . . .	. . . . .					0.9	0.1	. . . . .	. . . . .					0.9	—0.1	. . . . .	. . . . .	
●	F	15	15:50	22:05	. . . . .	. . . . .		●	S	15	14:45	22:24	. . . . .	. . . . .			W	15	7:07	12:40	15:24	23:45	
			0.9	0.1	. . . . .	. . . . .					0.9	0.0	. . . . .	. . . . .					0.8	0.7	0.9	0.0	
	S	16	16:02	22:40	. . . . .	. . . . .			M	16	15:11	23:08	. . . . .	. . . . .			Th	16	7:47	13:25	16:28	. . .	
			0.8	0.1	. . . . .	. . . . .					0.9	0.0	. . . . .	. . . . .					0.9	0.7	0.8	. . .	
	S	17	16:19	23:19	. . . . .	. . . . .		N	Tu	17	7:13	13:13	15:50	23:52		P	F	17	0:32	8:29	14:23	17:39	
			1.0	0.1	. . . . .	. . . . .					0.8	0.7	0.9	0.0					0.1	1.0	0.6	0.7	
	M	18	7:00	13:12	16:47	. . .			W	18	8:04	14:04	16:40	. . .			S	18	1:26	9:06	15:19	19:15	
			1.0	0.7	1.0	. . .					0.8	0.7	0.9	. . .					0.3	0.9	0.6	0.7	
	Tu	19	0:03	8:00	14:08	17:13			Th	19	0:45	8:53	15:02	17:42			S	19	2:22	9:40	16:10	21:05	
			0.1	0.9	0.7	1.0					0.1	0.9	0.6	0.7					0.3	1.0	0.5	0.6	
N	W	20	0:55	9:00	15:05	18:05			F	20	1:38	9:40	15:52	18:55		☽	M	20	3:18	10:10	16:54	22:53	
			0.2	1.0	0.7	0.9					0.2	0.9	0.5	0.6		E			0.4	1.0	0.4	0.7	
	Th	21	1:54	9:58	15:56	18:58			S	21	2:40	10:22	16:42	20:42			Tu	21	4:41	10:44	17:42	. . .	
			0.2	1.0	0.7	0.9					0.3	0.9	0.5	0.6					0.6	1.1	0.3	. . .	
☽	F	22	2:55	10:56	16:58	20:22		☽	S	22	3:45	11:00	17:32	. . .			W	22	11:26	18:33	. . . . .	. . . . .	
			0.3	0.9	0.7	0.9		P			0.4	0.9	0.4	. . .					1.0	0.2	. . . . .	. . . . .	
	S	23	4:05	11:44	17:50	22:10			M	23	11:35	18:10	. . . . .	. . . . .			Th	23	11:52	19:23	. . . . .	. . . . .	
			0.2	0.9	0.5	0.8					0.9	0.3	. . . . .	. . . . .					1.0	0.1	. . . . .	. . . . .	
	S	24	5:17	12:29	18:38	23:52		E	Tu	24	12:18	18:54	. . . . .	. . . . .			F	24	12:18	20:11	. . . . .	. . . . .	
			0.3	0.9	0.2	0.7					0.9	0.2	. . . . .	. . . . .					1.0	0.0	. . . . .	. . . . .	
	M	25	6:27	13:08	19:22	. . .			W	25	12:54	19:42	. . . . .	. . . . .			S	25	12:37	20:55	. . . . .	. . . . .	
			0.5	0.8	0.2	. . .					0.9	0.1	. . . . .	. . . . .					0.9	0.0	. . . . .	. . . . .	
P	Tu	26	13:50	20:00	. . . . .	. . . . .			Th	26	13:22	20:27	. . . . .	. . . . .			S	26	12:50	21:37	. . . . .	. . . . .	
			0.8	0.1	. . . . .	. . . . .					0.9	0.1	. . . . .	. . . . .					0.9	—0.1	. . . . .	. . . . .	
E	W	27	14:27	20:37	. . . . .	. . . . .			F	27	13:47	21:10	. . . . .	. . . . .		S	M	27	13:09	22:16	. . . . .	. . . . .	
			1.0	0.1	. . . . .	. . . . .					0.9	0.1	. . . . .	. . . . .		○			0.9	—0.1	. . . . .	. . . . .	
	Th	28	14:53	21:22	. . . . .	. . . . .			S	28	14:06	21:52	. . . . .	. . . . .			Tu	28	13:28	22:53	. . . . .	. . . . .	
			0.9	0.1	. . . . .	. . . . .					0.8	0.1	. . . . .	. . . . .					0.9	—0.2	. . . . .	. . . . .	
○	F	29	15:20	22:06	. . . . .	. . . . .		○	S	29	14:22	22:32	. . . . .	. . . . .			W	29	14:22	23:27	. . . . .	. . . . .	
			0.7	0.1	. . . . .	. . . . .					0.8	0.1	. . . . .	. . . . .					0.9	—0.3	. . . . .	. . . . .	
	S	30	15:40	22:47	. . . . .	. . . . .		S	M	30	14:20	22:57	. . . . .	. . . . .			Th	30	15:10	. . . . .	. . . . .	. . . . .	
			0.8	0.1	. . . . .	. . . . .					0.9	0.1	. . . . .	. . . . .					1.0	. . . . .	. . . . .	. . . . .	
									Tu	31	7:13	23:18	. . . . .	. . . . .									
											0.7	0.2	. . . . .	. . . . .									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:06	8:07	. . . . .			E	M	1	0:44	7:51	14:17	19:31			Tl.	1	2:18	7:27	14:32	21:52	
			—0.2	1.0	. . . . .						0.0	1.0	0.3	0.9					0.6	0.7	0.1	0.7	
A	S	2	0:37	8:32	15:25	17:47			Tu	2	1:27	8:08	14:48	20:50		☾	F	2	3:26	7:53	15:27	23:11	
			—0.1	1.0	0.6	0.6					0.1	1.0	0.3	0.7					0.6	0.7	0.0	0.7	
	S	3	1:13	9:00	15:55	19:15			W	3	2:30	8:36	15:29	22:05			S	3	4:40	8:30	16:30	. . .	
			0.0	1.0	0.6	0.6					0.2	1.0	0.3	0.7					0.6	0.8	—0.1	. . .	
E	M	4	1:57	9:22	16:22	21:14		☾	Th	4	3:31	9:00	16:22	23:35		N	S	4	0:30	6:05	9:24	17:38	
			0.2	1.0	0.6	0.6					0.4	1.1	0.0	0.6					0.8	0.7	0.8	—0.1	
☾	Tu	5	2:51	9:43	16:48	22:50			F	5	4:40	9:25	17:16	. . .			M	5	1:42	6:50	10:30	18:40	
			0.4	1.2	0.4	0.7					0.6	1.2	—0.1	. . .					0.8	0.6	0.9	—0.1	
	W	6	4:00	10:14	17:25	. . .			S	6	10:00	18:07	. . . . .				Tu	6	2:36	7:35	11:52	19:40	
			0.3	1.2	0.2	. . .					0.9	—0.2	. . . . .						0.8	0.5	0.9	—0.1	
	Th	7	0:09	5:08	10:40	18:07			S	7	10:42	19:02	. . . . .				W	7	3:13	8:27	13:07	20:38	
			0.6	0.4	1.2	—0.1					1.0	—0.2	. . . . .						0.8	0.6	0.9	—0.1	
	F	8	1:32	6:25	11:02	18:50		N	M	8	11:42	19:58	. . . . .				Th	8	3:53	9:11	14:20	21:35	
			0.7	0.6	1.3	—0.2					1.0	—0.3	. . . . .						0.8	0.6	0.9	—0.1	
	S	9	2:50	7:45	11:27	19:35			Tu	9	12:44	20:52	. . . . .			P	F	9	4:24	9:55	15:20	22:26	
			0.7	0.6	1.4	—0.4					1.0	—0.3	. . . . .			●			0.8	0.6	1.0	0.0	
	S	10	3:51	8:36	12:00	20:20			W	10	13:50	21:44	. . . . .			E	S	10	4:54	10:40	16:32	23:17	
			0.7	0.6	1.5	—0.5					1.0	—0.3	. . . . .						0.8	0.5	1.0	0.1	
N	M	11	4:44	9:27	13:00	21:00		●	Th	11	5:24	10:34	14:59	22:33			S	11	5:27	11:27	17:32	. . .	
			0.7	0.6	1.5	—0.6					0.9	0.6	1.0	—0.2					0.8	0.3	1.0	. . .	
●	Tu	12	5:15	10:18	13:40	21:50		P	F	12	5:52	11:18	16:11	23:23			M	12	0:10	6:00	12:02	18:40	
			0.7	0.6	1.4	—0.6					0.9	0.6	0.9	—0.1					0.3	0.8	0.2	1.0	
	W	13	5:55	11:09	14:25	22:35			S	13	6:22	12:07	17:20	. . .			Tu	13	1:05	6:29	12:52	19:50	
			0.8	0.7	1.4	—0.6					0.8	0.6	0.8	. . .					0.5	0.7	0.1	0.8	
P	Th	14	6:35	12:00	15:32	23:25		E	S	14	0:12	6:52	12:54	18:35			W	14	2:00	6:56	13:47	21:04	
			0.8	0.7	1.4	—0.5					0.1	0.9	0.4	0.8					0.6	0.7	0.1	0.8	
	F	15	7:05	12:50	16:43	. . .			M	15	1:00	7:22	13:36	19:47			Th	15	3:00	7:29	14:46	22:28	
			0.9	0.7	1.3	. . .					0.2	0.9	0.3	0.8					0.6	0.7	0.1	0.8	
	S	16	0:14	7:38	13:40	18:03			Tu	16	1:57	7:59	14:28	21:09		☽	F	16	3:55	8:04	15:45	23:52	
			—0.4	0.9	0.5	1.1					0.4	0.8	0.2	0.7					0.6	0.7	0.1	0.8	
E	S	17	1:05	8:10	14:28	19:36		☽	W	17	3:02	8:30	15:28	22:44		S	S	17	5:20	8:54	16:46	. . .	
			—0.2	1.0	0.5	1.0					0.6	0.8	0.2	0.6					0.7	0.7	0.1	. . .	
	M	18	1:56	8:38	15:13	21:13			Th	18	4:02	9:00	16:30	. . .			S	18	1:07	7:02	9:57	17:46	
			0.1	1.0	0.4	0.7					0.6	0.7	0.1	. . .					0.7	0.6	0.7	0.1	
☽	Tu	19	3:06	9:10	16:07	22:42			F	19	9:35	17:30	. . . . .				M	19	2:05	7:50	11:20	18:42	
			0.3	1.0	0.4	0.6					0.7	0.0	. . . . .						0.8	0.6	0.6	0.1	
	W	20	4:11	9:50	17:02	. . .		S	S	20	10:20	18:27	. . . . .				Tu	20	2:42	8:31	12:35	19:35	
			0.5	1.0	0.3	. . .					0.8	0.0	. . . . .						0.8	0.6	0.7	0.1	
	Th	21	10:20	18:00	. . . . .				S	21	11:02	19:17	. . . . .				W	21	3:12	9:03	13:38	20:22	
			1.0	0.1	. . . . .						0.8	0.0	. . . . .						0.8	0.6	0.6	0.2	
	F	22	10:45	18:52	. . . . .				M	22	11:47	20:06	. . . . .			A	Th	22	3:37	9:32	14:31	21:07	
			1.1	0.0	. . . . .						0.7	0.0	. . . . .						0.8	0.6	0.7	0.2	
	S	23	11:18	19:42	. . . . .				Tu	23	13:00	20:50	. . . . .				F	23	3:56	9:57	15:20	21:50	
			1.1	0.0	. . . . .						0.7	—0.1	. . . . .						0.8	0.5	0.5	0.2	
S	S	24	11:39	20:26	. . . . .				W	24	14:00	21:30	. . . . .			○	S	24	4:16	10:21	16:06	22:32	
			1.2	—0.1	. . . . .						0.7	0.0	. . . . .			E			0.8	0.5	0.8	0.3	
	M	25	11:58	21:07	. . . . .			○	Th	25	5:18	10:52	14:48	22:10			S	25	4:45	10:42	16:45	23:15	
			1.2	—0.1	. . . . .						0.9	0.5	0.6	0.0					0.8	0.4	0.9	0.4	
	Tu	26	13:00	21:50	. . . . .			A	F	26	5:32	11:17	15:39	22:47			M	26	5:03	11:00	17:33	. . .	
			1.2	—0.1	. . . . .						0.8	0.6	0.7	0.1					0.7	0.3	0.9	. . .	
○	W	27	13:44	22:26	. . . . .				S	27	5:50	11:45	16:30	23:20			Tu	27	0:02	5:14	11:32	18:30	
			1.1	—0.2	. . . . .						0.8	0.6	0.7	0.2					0.5	0.6	0.2	0.9	
	Th	28	14:45	23:03	. . . . .			E	S	28	6:05	12:10	17:27	23:56			W	28	0:52	5:28	12:08	19:31	
			1.1	—0.2	. . . . .						0.7	0.5	0.6	0.3					0.6	0.7	0.1	0.9	
	F	29	15:42	23:37	. . . . .				M	29	6:25	12:28	18:27	. . .			Th	29	1:42	6:50	12:50	20:34	
			1.1	—0.1	. . . . .						0.7	0.5	0.7	. . .					0.6	0.7	0.0	0.9	
A	S	30	16:52	. . . . .					Tu	30	0:37	6:52	13:00	19:20			F	30	2:37	6:20	13:44	21:42	
			1.0	. . . . .							0.4	0.8	0.3	0.8					0.6	0.7	0.0	0.9	
	S	31	0:10	7:30	13:58	18:07			W	31	1:22	7:08	13:40	20:30									
			0.0	0.9	0.6	0.9					0.5	0.8	0.2	0.8									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 0.6 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Central Standard, 90th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N,S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	4:23	10:16	17:00	22:50
			2.1	0.2	1.8	0.1
N	S	2	5:17	11:17	18:04	23:55
			2.1	0.0	2.1	0.0
○	S	3	6:12	12:08	19:00	. . .
			2.0	—0.1	2.4	. . .
P	M	4	0:55	7:04	12:57	19:53
			—0.1	2.0	—0.3	2.6
	Tu	5	1:52	7:54	13:45	20:47
			—0.1	1.9	—0.4	2.8
	W	6	2:48	8:44	14:34	21:40
			—0.1	1.8	—0.5	3.0
	Th	7	3:44	9:32	15:22	22:37
			0.0	1.7	—0.5	3.0
E	F	8	4:40	10:27	16:14	23:35
			0.1	1.6	—0.4	3.0
☾	S	9	5:38	11:26	17:19	. . .
			0.3	1.5	—0.4	. . .
	S	10	0:35	6:37	12:34	18:08
			2.9	0.4	1.4	—0.2
	M	11	1:39	7:37	13:40	19:12
			2.8	0.5	1.4	—0.1
	Tu	12	2:42	8:42	14:54	20:23
			2.6	0.6	1.4	0.0
	W	13	3:44	9:39	15:58	21:40
			2.4	0.6	1.6	0.1
	Th	14	4:42	10:32	17:00	22:52
			2.3	0.5	1.8	0.2
S	F	15	5:37	11:22	17:58	. . .
			2.1	0.4	1.9	. . .
	S	16	0:02	6:26	12:02	18:52
			0.3	1.9	0.4	2.1
●	S	17	1:02	7:10	12:36	19:42
			0.3	1.7	0.4	2.2
	M	18	2:02	7:50	13:05	20:27
			0.5	1.6	0.3	2.2
A	Tu	19	2:33	8:25	13:33	21:09
			0.6	1.4	0.2	2.3
	W	20	3:02	8:47	14:02	21:47
			0.7	1.3	0.2	2.3
	Th	21	3:25	8:50	14:23	22:16
			0.7	1.2	0.0	2.2
E	F	22	3:43	9:05	14:57	22:47
			0.9	1.2	0.0	2.1
	S	23	4:00	9:15	15:48	23:12
			0.9	1.3	0.0	2.1
	S	24	4:27	9:23	16:21	23:33
			0.9	1.4	—0.1	2.1
☽	M	25	5:07	10:15	17:07	. . .
			0.8	1.4	—0.1	. . .
	Tu	26	0:07	5:54	11:14	18:01
			2.1	0.7	1.4	0.0
	W	27	0:50	6:45	12:25	19:00
			2.0	0.6	1.5	0.0
	Th	28	1:42	7:43	13:47	20:04
			2.0	0.4	1.6	0.1
N	F	29	2:45	8:42	15:14	21:15
			2.0	0.3	1.6	0.1
	S	30	3:50	9:42	16:36	22:23
			1.9	0.2	1.9	0.0
	S	31	4:55	10:44	17:42	23:32
			1.9	0.0	2.2	0.0

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○ P	M	1	5:52	11:38	18:42	. . .
			1.9	—0.2	2.5	. . .
	Tu	2	0:35	6:47	12:31	19:38
			0.0	1.9	—0.3	2.7
	W	3	1:36	7:40	13:25	20:32
			0.0	1.9	—0.5	2.9
E	Th	4	2:33	8:34	14:17	21:27
			0.1	1.9	—0.6	2.9
	F	5	3:29	9:24	15:09	22:22
			0.1	1.8	—0.5	3.1
	S	6	4:22	10:17	16:08	23:19
			0.2	1.7	—0.5	3.0
	S	7	5:16	11:14	17:00	. . .
			0.3	1.6	—0.5	. . .
☾	M	8	0:17	6:10	12:13	18:00
			2.8	0.5	1.6	—0.3
	Tu	9	1:20	7:06	13:17	19:05
			2.6	0.6	1.6	—0.1
	W	10	2:18	8:04	14:22	20:17
			2.3	0.6	1.8	0.0
S	Th	11	3:17	9:02	15:27	21:32
			2.2	0.6	1.8	0.2
	F	12	4:13	9:52	16:32	22:45
			1.9	0.6	1.9	0.3
	S	13	5:07	10:37	17:30	23:57
			1.8	0.5	2.0	0.4
	S	14	5:55	11:21	18:25	. . .
			1.6	0.5	2.1	. . .
A	M	15	0:57	6:37	12:00	19:15
			0.5	1.5	0.5	2.2
●	Tu	16	1:42	7:15	12:32	20:00
			0.6	1.4	0.4	2.2
	W	17	2:12	7:50	13:02	20:40
			0.7	1.2	0.4	2.2
	Th	18	2:28	8:00	13:31	21:12
			0.9	1.2	0.3	2.1
E	F	19	2:38	8:10	14:03	21:42
			0.9	1.2	0.1	2.1
	S	20	2:52	8:22	14:40	22:06
			0.9	1.3	0.0	2.1
	S	21	3:13	8:35	15:18	22:25
			0.9	1.4	—0.1	2.0
	M	22	3:50	9:20	16:02	22:51
			0.7	1.5	0.0	2.0
	Tu	23	4:30	10:07	16:50	23:26
			0.6	1.7	—0.1	2.0
☽	W	24	5:17	11:07	17:45	. . .
			0.5	1.5	—0.1	. . .
	Th	25	0:12	6:10	12:12	18:42
			1.9	0.4	1.8	0.0
N	F	26	1:07	7:03	13:23	19:46
			1.9	0.3	1.9	0.0
	S	27	2:11	8:07	14:47	20:57
			1.8	0.2	2.0	0.0
	S	28	3:25	9:10	16:10	22:06
			1.8	0.2	2.1	0.1
	M	29	4:31	10:12	17:19	23:17
			1.7	—0.1	2.4	0.1

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	5:35	11:14	18:22	. . .
			1.8	—0.1	2.6	. . .
	W	2	0:20	6:35	12:12	19:21
			0.0	1.8	—0.2	2.8
E	Th	3	1:22	7:30	13:10	20:17
			0.0	1.8	—0.4	2.9
	F	4	2:16	8:19	14:05	21:10
			0.1	1.9	—0.6	3.0
	S	5	3:10	9:11	15:00	22:06
			0.1	1.9	—0.6	2.9
	S	6	3:55	10:04	15:56	23:00
			0.2	1.9	—0.5	2.7
	M	7	4:46	10:56	16:56	23:58
			0.3	2.0	—0.4	2.5
☾	Tu	8	5:33	11:52	17:55	. . .
			0.4	2.0	—0.2	. . .
S	W	9	0:54	6:22	12:53	18:58
			2.2	0.5	2.0	—0.1
	Th	10	1:50	7:12	13:55	20:06
			2.0	0.6	2.0	0.1
	F	11	2:47	8:02	15:00	21:08
			1.8	0.6	2.0	0.3
	S	12	3:42	8:50	16:00	22:32
			1.6	0.7	2.0	0.4
	S	13	4:34	9:39	17:00	23:42
			1.4	0.6	2.1	0.6
A	M	14	5:28	10:28	17:56	. . .
			1.4	0.6	2.1	. . .
	Tu	15	0:33	6:06	11:15	18:44
			0.7	1.3	0.6	2.1
	W	16	1:05	6:45	11:55	19:27
			0.8	1.3	0.4	2.1
● E	Th	17	1:22	7:17	12:30	20:02
			0.9	1.2	0.4	2.1
	F	18	1:38	7:44	13:07	20:35
			0.9	1.3	0.3	2.0
	S	19	1:51	7:50	13:45	21:00
			0.9	1.3	0.3	2.0
	S	20	2:12	8:09	14:23	21:25
			0.7	1.5	0.1	2.0
	M	21	2:45	8:42	15:05	21:45
			0.6	1.6	—0.1	1.9
	Tu	22	3:22	9:22	15:50	22:16
			0.4	1.8	0.0	1.9
	W	23	4:02	10:10	16:40	22:56
			0.3	2.0	—0.1	1.8
N ☽	Th	24	4:47	11:04	17:32	23:44
			0.3	2.1	—0.1	1.8
	F	25	5:40	12:02	18:31	. . .
			0.2	2.1	0.0	. . .
	S	26	0:40	6:35	13:16	19:35
			1.6	0.2	2.1	0.1
	S	27	1:46	7:33	14:35	20:44
			1.6	0.2	2.2	0.2
	M	28	3:03	8:39	15:55	21:56
			1.5	0.2	2.3	0.1
P	Tu	29	4:18	9:47	17:02	23:05
			1.5	0.1	2.6	0.2
E	W	30	5:23	10:52	18:05	. . .
			1.6	0.0	2.6	. . .
○	Th	31	0:08	6:22	11:57	19:04
			0.2	1.7	—0.1	2.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case substract it.

The time used is Buenos Ayres Mean Local Civil, for the meridian 58° 22′, W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
APRIL.						
	F	1	1:05 0.2	7:14 1.8	12:59 —0.2	20:00 2.8
	S	2	1:57 0.1	8:07 2.0	13:56 —0.4	20:53 2.8
	S	3	2:42 0.1	8:59 2.0	14:52 —0.4	21:47 2.6
	M	4	3:28 0.2	9:49 2.1	15:48 —0.4	22:38 2.4
	Tu	5	4:09 0.3	10:40 2.1	16:46 —0.3	23:30 2.1
S	W	6	4:52 0.3	11:35 2.1	17:42 —0.1	. . . . . .
☾	Th	7	0:22 1.8	5:30 0.4	12:30 2.1	18:44 0.2
	F	8	1:15 1.6	6:12 0.6	13:27 2.1	19:47 0.4
	S	9	2:06 1.4	6:55 0.7	14:27 2.1	21:00 0.5
A	S	10	3:00 1.2	7:40 0.7	15:26 2.1	22:10 0.7
	M	11	3:58 1.2	8:32 0.6	16:24 2.1	23:05 0.8
	Tu	12	4:42 1.1	9:27 0.7	17:17 2.1	23:42 0.8
E	W	13	5:30 1.1	10:20 0.6	18:03 2.0	. . . . . .
	Th	14	0:07 0.7	6:09 1.2	11:10 0.5	18:44 2.0
●	F	15	0:25 0.7	6:43 1.3	11:58 0.5	19:20 1.9
	S	16	0:45 0.6	7:12 1.4	12:42 0.3	19:50 1.9
	S	17	1:12 0.5	7:42 1.6	13:25 0.2	20:22 1.9
	M	18	1:47 0.4	8:12 1.8	14:10 0.1	20:44 1.9
	Tu	19	2:17 0.2	8:50 1.9	14:58 0.0	21:15 1.9
N	W	20	2:58 0.1	9:28 2.1	15:40 —0.1	21:50 1.8
	Th	21	3:42 0.1	10:16 2.2	16:32 0.0	22:34 1.7
	F	22	4:26 0.1	11:09 2.3	17:26 0.0	23:21 1.6
☽	S	23	5:14 0.0	12:08 2.4	18:25 0.1	. . . . . .
	S	24	0:20 1.4	6:10 0.1	13:15 2.4	19:30 0.2
	M	25	1:27 1.3	7:10 0.1	14:30 2.4	20:40 0.3
P	Tu	26	2:55 1.4	8:15 0.1	15:42 2.5	21:52 0.3
E	W	27	4:06 1.3	9:24 0.1	16:47 2.5	22:56 0.3
	Th	28	5:15 1.5	10:36 0.0	17:50 2.6	23:55 0.2
○	F	29	6:11 1.6	11:45 0.0	18:47 2.6	. . . . . .
	S	30	0:48 0.1	7:02 1.9	12:47 —0.1	19:42 2.5
MAY.						
	S	1	1:34 0.2	7:55 2.2	13:50 —0.2	20:33 2.4
	M	2	2:16 0.1	8:46 2.2	14:45 —0.2	21:24 2.2
S	Tu	3	2:57 0.2	9:34 2.3	15:38 —0.1	22:12 2.0
	W	4	3:32 0.2	10:24 2.3	16:33 0.0	22:55 1.7
	Th	5	4:07 0.3	11:15 2.3	17:27 0.2	23:42 1.5
	F	6	4:40 0.3	12:07 2.4	18:22 0.4	. . . . . .
☾	S	7	0:30 1.2	5:13 0.4	13:00 2.2	19:22 0.6
A	S	8	1:17 1.0	5:54 0.6	13:53 2.1	20:22 0.8
	M	9	2:11 1.0	6:37 0.6	14:47 2.1	21:14 0.8
	Tu	10	2:57 1.0	7:27 0.6	15:40 2.0	21:55 0.9
E	W	11	3:46 1.0	8:25 0.5	16:30 2.0	22:28 1.0
	Th	12	4:40 1.0	9:27 0.6	17:12 1.9	22:53 0.8
	F	13	5:24 1.2	10:26 0.6	17:54 1.9	23:25 0.7
	S	14	6:05 1.4	11:26 0.5	18:30 1.9	. . . . . .
●	S	15	0:00 0.5	6:46 1.6	12:15 0.3	19:05 1.9
	M	16	0:37 0.3	7:25 1.7	13:07 0.2	19:40 1.9
	Tu	17	1:16 0.1	8:05 2.0	13:55 0.1	20:12 1.9
N	W	18	1:56 0.0	8:46 2.2	14:43 0.0	20:48 1.8
	Th	19	2:38 0.0	9:32 2.4	15:33 0.0	21:30 1.7
	F	20	3:22 —0.1	10:22 2.4	16:25 0.0	22:15 1.6
	S	21	4:08 —0.1	11:12 2.5	17:22 0.2	23:09 1.4
☽ P	S	22	4:57 —0.1	12:14 2.6	18:21 0.3	. . . . . .
	M	23	0:07 1.3	5:50 0.0	13:18 2.6	19:27 0.4
E	Tu	24	1:24 1.2	6:54 0.0	14:27 2.6	20:35 0.4
	W	25	2:44 1.2	8:00 0.1	15:32 2.6	21:45 0.4
	Th	26	3:57 1.3	9:12 0.1	16:37 2.5	22:46 0.4
	F	27	5:00 1.5	10:27 0.1	17:36 2.5	23:40 0.3
	S	28	6:00 1.7	11:40 0.1	18:32 2.4	. . . . . .
○	S	29	0:30 0.2	6:52 2.0	12:43 0.1	19:24 2.3
	M	30	1:08 0.2	7:44 2.1	13:42 0.0	20:12 2.1
S	Tu	31	1:47 0.2	8:32 2.3	14:38 0.0	20:57 1.9
JUNE.						
	W	1	2:22 0.2	9:21 2.4	15:32 0.2	21:40 1.7
	Th	2	2:54 0.2	10:10 2.4	16:24 0.4	22:22 1.3
	F	3	3:25 0.2	10:55 2.4	17:10 0.7	23:00 1.0
	S	4	3:55 0.2	11:42 2.4	17:56 0.8	23:10 1.0
A	S	5	4:30 0.2	12:28 2.3	18:32 1.0	23:20 1.0
☾	M	6	5:06 0.2	13:16 2.2	19:10 1.0	23:30 1.0
E	Tu	7	5:50 0.3	14:02 2.1	19:47 1.0	23:46 1.0
	W	8	6:43 0.3	14:47 1.9	20:20 1.0	. . . . . .
	Th	9	1:10 1.0	7:38 0.5	15:32 1.9	21:03 0.8
	F	10	3:12 1.0	8:45 0.4	16:16 1.9	21:50 0.7
	S	11	4:25 1.1	9:46 0.4	16:58 1.9	22:33 0.5
	S	12	5:27 1.4	10:50 0.4	17:40 1.9	23:22 0.3
●	M	13	6:17 1.6	11:48 0.2	18:20 1.9	. . . . . .
N	Tu	14	0:07 0.1	7:02 2.0	12:46 0.1	19:03 1.9
	W	15	0:52 0.0	7:50 2.2	13:38 0.1	19:47 1.9
	Th	16	1:38 —0.2	8:35 2.5	14:32 0.0	20:30 1.8
P	F	17	2:20 —0.3	9:27 2.6	15:25 0.1	21:18 1.7
	S	18	3:06 —0.3	10:18 2.8	16:18 0.1	22:10 1.5
	S	19	3:52 —0.3	11:12 2.8	17:17 0.2	23:05 1.3
☽ E	M	20	4:46 —0.3	12:10 2.8	18:17 0.4	. . . . . .
	Tu	21	0:07 1.3	5:40 —0.2	13:14 2.8	19:20 0.4
	W	22	1:16 1.3	6:42 —0.1	14:20 2.7	20:28 0.5
	Th	23	2:30 1.3	7:52 —0.1	15:22 2.6	21:30 0.5
	F	24	3:39 1.4	9:07 —0.1	16:22 2.5	22:28 0.4
	S	25	4:44 1.6	10:22 0.1	17:22 2.4	23:22 0.3
	S	26	5:44 1.8	11:35 0.1	18:17 2.2	. . . . . .
S ○	M	27	0:05 0.2	6:39 2.1	12:40 0.1	19:06 2.0
	Tu	28	0:45 0.2	7:30 2.2	13:42 0.2	19:50 1.8
	W	29	1:20 0.2	8:20 2.4	14:37 0.2	20:31 1.6
	Th	30	1:52 0.1	9:07 2.4	15:23 0.4	21:10 1.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Buenos Ayres Mean Local Civil, for the meridian 58° 22′ W., 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	2:22	9:52	16:04	21:43	
			0.1	2.5	0.6	1.2	
	S	2	2:50	10:35	16:38	22:09	
			0.1	2.4	0.7	1.1	
A	S	3	3:19	11:15	17:08	21:29	
			0.0	2.3	0.9	1.0	
E	M	4	3:54	11:55	17:27	21:36	
			0.0	2.2	1.0	1.1	
☾	Tu	5	4:32	12:30	17:52	22:13	
			0.0	2.1	1.0	1.1	
	W	6	5:17	13:07	18:25	23:10	
			0.1	2.0	1.0	1.1	
	Th	7	6:09	13:40	19:09	. . .	
			0.2	1.9	0.9	. . .	
	F	8	0:18	7:02	14:19	20:00	
			1.2	0.2	1.9	0.7	
	S	9	1:46	8:05	15:15	20:54	
			1.3	0.2	1.9	0.5	
	S	10	3:25	9:13	16:02	21:50	
			1.5	0.3	1.9	0.3	
N	M	11	4:40	10:20	16:54	22:44	
			1.7	0.2	1.9	0.1	
	Tu	12	5:40	11:23	17:48	23:37	
			1.9	0.1	1.9	0.0	
●	W	13	6:39	12:24	18:37	. . .	
			2.2	0.1	1.9	. . .	
	Th	14	0:28	7:30	13:22	19:26	
			—0.2	2.5	0.0	1.9	
P	F	15	1:16	8:24	14:19	20:14	
			—0.4	2.7	0.0	1.8	
	S	16	2:04	9:14	15:15	21:06	
			—0.5	2.8	0.1	1.8	
E	S	17	2:54	10.09	16.07	22:00	
			—0.6	2.9	0.1	1.7	
	M	18	3:44	11:07	17:04	22:55	
			—0.6	2.9	0.3	1.5	
☽	Tu	19	4:37	12:03	18:02	23:54	
			—0.5	2.9	0.4	1.5	
	W	20	5:32	13:02	19:00	. . .	
			—0.4	2.8	0.5	. . .	
	Th	21	1:02	6:40	14:05	20:00	
			1.5	—0.2	2.6	0.5	
	F	22	2:09	7:50	15:07	21:03	
			1.5	—0.1	2.4	0.6	
	S	23	3:19	9:05	16:08	22:01	
			1.6	0.1	2.3	0.5	
S	S	24	4:25	10:20	17:04	22:52	
			1.8	0.1	2.1	0.4	
	M	25	5:25	11:32	17:57	23:37	
			1.9	0.2	1.9	0.4	
	Tu	26	6:22	12:42	18:42	. . .	
			2.1	0.4	1.8	. . .	
○	W	27	0:20	7:15	13:42	19:28	
			0.3	2.3	0.5	1.6	
	Th	28	0:55	8:05	14:28	20:07	
			0.2	2.3	0.6	1.4	
	F	29	1:27	8:50	15:05	20:42	
			0.2	2.4	0.6	1.3	
A	S	30	1:58	9:32	15:32	21:07	
			0.1	2.4	0.8	1.2	
	S	31	2:24	10:10	15:47	21:22	
			0.1	2.3	0.9	1.0	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	2:52	10:45	16:02	21:35	
			0.0	2.2	1.1	1.1	
	Tu	2	3:30	11:17	16:20	21:45	
			—0.1	2.1	1.0	1.2	
	W	3	4:09	11:45	16:48	22:00	
			0.0	2.0	0.9	1.4	
☾	Th	4	4:52	12:00	17:30	22:52	
			0.0	2.0	0.8	1.5	
	F	5	5:45	12:31	18:20	23:56	
			0.0	1.9	0.6	1.6	
	S	6	6:35	13:15	19:12	. . .	
			0.1	1.9	0.5	. . .	
	S	7	1:12	7:38	14:10	20:10	
			1.6	0.1	1.8	0.4	
N	M	8	2:37	8:44	15:12	21:10	
			1.7	0.2	1.8	0.2	
	Tu	9	4:02	9:53	16:21	22:10	
			1.9	0.1	1.8	0.1	
	W	10	5:12	11:00	17:22	23:10	
			2.2	0.1	1.8	—0.1	
●	Th	11	6:12	12:06	18:17	. . .	
			2.4	0.1	1.8	. . .	
P	F	12	0:08	7:10	13:07	19:11	
			—0.3	2.6	0.1	1.9	
	S	13	0:58	8:04	14:02	20:03	
			—0.4	2.8	0.0	1.9	
E	S	14	1:50	9:00	14:55	20:55	
			—0.6	2.9	0.0	1.8	
	M	15	2:43	9:54	15:48	21:47	
			—0.6	3.0	0.2	1.9	
	Tu	16	3:39	10:50	16:41	22:40	
			—0.6	2.9	0.3	1.8	
	W	17	4:34	11:46	17:36	23:41	
			—0.6	2.8	0.3	1.8	
☽	Th	18	5:33	12:47	18:28	. . .	
			—0.4	2.6	0.4	. . .	
	F	19	0:42	6:37	13:47	19:27	
			1.8	—0.2	2.4	0.5	
S	S	20	1:50	7:45	14:47	20:24	
			1.8	—0.1	2.2	0.5	
	S	21	2:55	8:59	15:47	21:18	
			1.9	0.0	2.0	0.5	
	M	22	4:03	10:16	16:42	22:12	
			2.0	0.2	1.8	0.5	
	Tu	23	5:05	11:33	17:33	23:01	
			2.1	0.3	1.7	0.5	
	W	24	6:02	12:40	18:20	23:50	
			2.2	0.4	1.5	0.4	
○	Th	25	6:56	13:32	19:02	. . .	
			2.2	0.5	1.4	. . .	
	F	26	0:30	7:43	14:09	19:40	
			0.3	2.3	0.7	1.4	
A	S	27	1:00	8:28	14:32	20:12	
			0.2	2.2	0.9	1.4	
E	S	28	1:34	9:07	14:47	20:22	
			0.2	2.2	0.9	1.2	
	M	29	2:02	9:40	14:55	20:32	
			0.1	2.1	0.9	1.2	
	Tu	30	2:34	10:07	15:06	20:49	
			0.1	2.0	0.9	1.4	
	W	31	3:09	10:27	15:32	21:06	
			0.0	1.9	0.7	1.6	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	3:50	10:39	16:06	21:50	
			0.0	1.9	0.7	1.7	
☾	F	2	4:32	11:04	16:47	22:42	
			0.0	1.8	0.5	1.8	
	S	3	5:21	11:38	17:38	23:45	
			0.0	1.8	0.4	1.9	
N	S	4	6:17	12:26	18:32	. . .	
			0.0	1.7	0.3	. . .	
	M	5	0:50	7:17	13:33	19:30	
			1.9	0.0	1.7	0.2	
	Tu	6	2:11	8:22	14:37	20:32	
			2.0	0.1	1.7	0.2	
	W	7	3:30	9:32	15:53	21:37	
			2.1	0.1	1.6	0.1	
	Th	8	4:44	10:40	17:00	22:42	
			2.3	0.1	1.7	0.0	
P ●	F	9	5:50	11:46	18:00	23:42	
			2.5	0.1	1.8	—0.2	
E	S	10	6:50	12:50	18:58	. . .	
			2.7	0.0	1.8	. . .	
	S	11	0:41	7:49	13:45	19:52	
			—0.4	2.8	0.1	1.9	
	M	12	1:40	8:42	14:37	20:42	
			—0.5	2.9	0.0	2.0	
	Tu	13	2:37	9:35	15:25	21:34	
			—0.6	2.9	0.1	2.1	
	W	14	3:31	10:32	16:15	22:30	
			—0.6	2.7	0.2	2.2	
	Th	15	4:30	11:27	17:04	23:26	
			—0.5	2.5	0.3	2.1	
☽	F	16	5:27	12:23	17:52	. . .	
			—0.4	2.3	0.4	. . .	
S	S	17	0:27	6:31	13:21	18:40	
			2.1	—0.2	2.0	0.4	
	S	18	1:27	7:38	14:18	19:30	
			2.2	0.0	1.7	0.5	
	M	19	2:31	8:52	15:17	20:26	
			2.2	0.2	1.6	0.6	
	Tu	20	3:37	10:10	16:12	21:20	
			2.2	0.3	1.5	0.6	
	W	21	4:37	11:26	17:05	22:16	
			2.2	0.4	1.4	0.6	
	Th	22	5:35	12:25	17:52	23:06	
			2.2	0.6	1.3	0.6	
A	F	23	6:27	13:06	18:35	23:52	
			2.2	0.6	1.3	0.6	
○ E	S	24	7:14	13:30	19:12	. . .	
			2.2	0.7	1.3	. . .	
	S	25	0:32	7:55	13:44	19:44	
			0.4	2.1	0.9	1.3	
	M	26	1:10	8:31	13:52	20:07	
			0.4	2.0	0.8	1.4	
	Tu	27	1:37	8:56	14:05	20:18	
			0.2	1.9	0.7	1.4	
	W	28	2:14	9:20	14:29	20:37	
			0.2	1.9	0.6	1.6	
	Th	29	2:52	9:33	14:59	21:09	
			0.1	1.8	0.4	1.8	
	F	30	3:32	9:50	15:36	21:51	
			0.0	1.8	0.3	2.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Buenos Ayres Mean Local Civil, for the meridian 58° 22′ W.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	4:18	10:22	16:20	22:39		Tu	1	5:52	11:28	17:36	. . .		Th	1	0:40	6:46	12:22	18:16
			0.0	1.7	0.2	2.1				0.1	1.4	—0.1	. . .				2.6	0.4	1.2	—0.1
☾	S	2	5:05	11:00	17:07	23:36		W	2	0:37	6:52	12:34	18:32	E P	F	2	1:46	7:50	13:42	19:22
			0.0	1.7	0.1	2.2				2.5	0.2	1.3	—0.1				2.6	0.4	1.2	—0.1
	M	3	6:01	11:51	18:00	. . .		Th	3	1:48	7:59	13:50	19:35		S	3	2:54	8:56	15:08	20:32
			0.0	1.6	0.1	. . .				2.4	0.2	1.3	0.0				2.6	0.4	1.2	0.0
	Tu	4	0:38	7:02	12:57	19:00	E	F	4	3:02	9:08	15:17	20:44		S	4	4:00	10:02	16:20	21:47
			2.2	0.1	1.5	0.1				2.4	0.3	1.3	—0.1				2.5	0.4	1.4	0.0
	W	5	1:55	8:09	14:08	20:02	P	S	5	4:11	10:14	16:32	22:00		M	5	5:00	11:04	17:24	23:00
			2.3	0.1	1.4	0.1				2.6	0.3	1.5	0.0				2.5	0.3	1.7	0.0
	Th	6	3:09	9:17	15:29	21:11		S	6	5:17	11:15	17:32	23:10	●	Tu	6	6:00	11:54	18:22	. . .
			2.4	0.2	1.5	0.1				2.6	0.2	1.7	—0.1				2.4	0.2	1.9	. . .
	F	7	4:26	10:26	16:44	22:17	●	M	7	6:16	12:12	18:33	. . .		W	7	0:09	6:54	12:38	19:17
			2.5	0.1	1.5	—0.1				2.6	0.1	1.9	. . .				—0.1	2.3	0.1	2.2
P E	S	8	5:33	11:32	17:47	23:22		Tu	8	0:17	7:10	13:02	19:23	S	Th	8	1:12	7:47	13:21	20:08
			2.6	0.1	1.7	—0.2				—0.1	2.6	0.0	2.1				—0.1	2.2	0.0	2.3
●	S	9	6:32	12:32	18:44	. . .		W	9	1:20	8:02	13:48	20:20		F	9	2:11	8:33	14:02	20:59
			2.7	0.1	1.9	. . .				—0.3	2.5	0.0	2.3				—0.1	2.0	0.0	2.5
	M	10	0:27	7:27	13:24	19:40	S	Th	10	2:17	8:56	14:32	21:11		S	10	3:10	9:18	14:38	21:48
			—0.3	2.8	0.1	2.1				—0.3	2.3	0.0	2.5				0.1	1.8	0.0	2.6
	Tu	11	1:28	8:22	14:12	20:32		F	11	3:15	9:45	15:10	22:02		S	11	4:05	10:02	15:14	22:38
			—0.4	2.8	0.0	2.2				—0.2	2.1	0.1	2.5				0.2	1.5	0.0	2.6
	W	12	2:27	9:17	14:59	21:22		S	12	4:12	10:33	15:49	22:55		M	12	4:57	10:43	15:48	23:27
			—0.4	2.6	0.1	2.3				—0.1	1.8	0.1	2.6				0.4	1.3	0.1	2.6
	Th	13	3:22	10:10	15:42	22:16		S	13	5:09	11:21	16:26	23:47		Tu	13	5:43	11:27	16:25	. . .
			—0.5	2.4	0.1	2.4				0.1	1.6	0.1	2.5				0.6	1.2	0.1	. . .
S	F	14	4:20	11:02	16:27	23:10	☽	M	14	6:09	12:10	17:04	. . .	☽ A	W	14	0:16	6:32	12:09	17:02
			—0.4	2.2	0.2	2.4				0.3	1.3	0.2	. . .				2.4	0.7	1.0	0.1
	S	15	5:20	11:56	17:10	. . .		Tu	15	0:43	7:12	12:56	17:44	E	Th	15	1:07	7:14	12:37	17:46
			—0.2	1.9	0.3	. . .				2.4	0.5	1.1	0.4				2.3	0.8	1.0	0.2
☽	S	16	0:07	6:21	12:47	17:52		W	16	1:37	8:10	13:51	18:29		F	16	1:55	7:52	12:57	18:34
			2.4	0.1	1.6	0.4				2.4	0.7	1.0	0.4				2.2	0.9	1.0	0.3
	M	17	1:04	7:27	13:44	18:37	A	Th	17	2:34	9:12	14:49	19:20		S	17	2:42	8:27	13:35	19:29
			2.4	0.2	1.4	0.4				2.2	0.8	1.0	0.5				2.0	0.9	1.0	0.4
	Tu	18	2:05	8:43	14:40	19:27	E	F	18	3:28	10:02	15:43	20:17		S	18	3:18	9:00	15:22	20:26
			2.3	0.4	1.3	0.5				2.1	0.8	1.0	0.5				1.9	0.9	1.0	0.5
	W	19	3:07	9:57	15:35	20:17		S	19	4:20	10:38	16:33	21:17		M	19	4:10	9:36	16:22	21:29
			2.3	0.6	1.2	0.6				2.0	0.8	1.0	0.6				1.8	0.8	1.2	0.5
A	Th	20	4:05	11:02	16:27	21:13		S	20	5:06	11:00	17:20	22:15		Tu	20	4:50	10:18	17:14	22:32
			2.2	0.6	1.1	0.6				2.0	0.8	1.1	0.6				1.7	0.5	1.4	0.5
	F	21	5:00	11:48	17:17	22:14		M	21	5:48	11:20	18:03	23:13		W	21	5:27	11:00	18:04	23:31
			2.2	0.6	1.2	0.6				1.9	0.7	1.2	0.6				1.7	0.4	1.6	0.4
E	S	22	5:52	12:13	18:00	23:08	○	Tu	22	6:22	11:47	18:41	. . .	○ N	Th	22	6:05	11:44	18:50	. . .
			2.1	0.6	1.2	0.5				1.8	0.6	1.5	. . .				1.7	0.2	1.8	. . .
	S	23	6:36	12:34	18:41	23:57		W	23	0:02	6:56	12:19	19:20		F	23	0:25	6:40	12:28	19:33
			2.0	0.7	1.3	0.5				0.5	1.8	0.4	1.7				0.3	1.8	0.0	2.1
○	M	24	7:13	12:45	19:15	. . .		Th	24	0:52	7:22	12:58	19:57		S	24	1:18	7:16	13:12	20:17
			1.9	0.7	1.4	. . .				0.3	1.8	0.2	1.9				0.2	1.8	—0.1	2.3
	Tu	25	0:35	7:44	13:02	19:45	N	F	25	1:36	7:47	13:34	20:36		S	25	2:08	7:56	13:56	21:03
			0.4	1.9	0.6	1.6				0.2	1.8	0.1	2.1				0.2	1.7	—0.2	2.5
	W	26	1:15	8:12	13:26	20:11		S	26	2:23	8:19	14:14	21:12		M	26	2:59	8:40	14:40	21:51
			0.3	1.8	0.4	1.7				0.2	1.7	—0.1	2.3				0.2	1.7	—0.4	2.7
	Th	27	1:55	8:31	14:00	20:40		S	27	3:10	8:53	14:56	21:57	P	Tu	27	3:48	9:27	15:26	22:43
			0.2	1.8	0.3	1.9				0.1	1.6	—0.2	2.4				0.2	1.6	—0.4	2.8
	F	28	2:37	8:49	14:36	21:13		M	28	4:00	9:38	15:40	22:46		W	28	4:42	10:16	16:15	23:39
			0.1	1.7	0.2	2.0				0.1	1.6	—0.2	2.5				0.2	1.5	—0.4	2.7
N	S	29	3:20	9:16	15:12	21:58		Tu	29	4:50	10:22	16:26	23:40	E ☾	Th	29	5:38	11:12	17:19	. . .
			0.1	1.7	0.1	2.2				0.2	1.5	—0.1	2.6				0.4	1.4	—0.3	. . .
	S	30	4:07	9:50	15:59	22:41	☾	W	30	5:45	11:16	17:18	. . .		F	30	0:37	6:38	12:19	18:06
			0.1	1.6	0.0	2.3				0.3	1.3	—0.2	. . .				2.7	0.5	1.3	—0.2
☾	M	31	4:56	10:35	16:45	23:37									S	31	1:42	7:40	13:37	19:12
			0.1	1.5	0.0	2.4											2.6	0.5	1.3	—0.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Buenos Ayres Mean Local Civil, for the meridian 58° 22′ W; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	1:55 5.2	8:12 0.1	14:18 5.1	20:00 0.4	
N	S	2	2:42 5.5	9:05 —0.2	15:12 4.1	20:52 0.5	
○	S	3	3:29 5.7	9:56 —0.4	16:04 4.1	21:42 0.5	
P	M	4	4:17 5.8	10:48 —0.6	16:56 4.1	22:32 0.5	
	Tu	5	5:07 5.9	11:37 —0.7	17:47 4.2	23:23 0.5	
	W	6	5:57 5.8	12:29 —0.7	18:40 4.2	. . .	
	Th	7	0:17 0.6	6:48 5.7	13:19 —0.6	19:31 4.3	
E	F	8	1:12 0.6	7:40 5.4	14:09 —0.5	20:24 4.4	
☾	S	9	2:10 0.6	8:35 5.1	15:00 —0.3	21:19 4.5	
	S	10	3:14 0.7	9:33 4.8	15:50 —0.1	22:12 4.6	
	M	11	4:17 0.6	10:27 4.5	16:40 0.1	23:07 4.7	
	Tu	12	5:22 0.6	11:28 4.2	17:32 0.3	. . .	
	W	13	0:00 4.9	6:27 0.5	12:25 4.0	18:23 0.4	
	Th	14	0:53 5.0	7:28 0.5	13:24 3.8	19:14 0.5	
S	F	15	1:42 5.2	8:20 0.4	14:14 3.7	20:02 0.6	
	S	16	2:30 5.3	9:10 0.3	15:07 3.7	20:48 0.7	
●	S	17	3:16 5.3	9:56 0.2	15:56 3.7	21:32 0.8	
	M	18	4:00 5.3	10:40 0.2	16:40 3.7	22:15 0.9	
A	Tu	19	4:46 5.2	11:20 0.1	17:22 3.7	22:58 1.0	
	W	20	5:30 5.1	11:58 0.1	18:06 3.7	23:37 1.1	
	Th	21	6:10 5.0	12:37 0.1	18:47 3.8	. . .	
E	F	22	0:18 1.1	6:55 4.8	13:17 0.1	19:32 4.9	
	S	23	1:07 1.2	7:38 4.6	13:57 0.1	20:20 4.1	
	S	24	1:55 1.1	8:24 4.4	14:40 0.2	21:09 4.2	
☽	M	25	2:50 1.0	9:14 4.2	15:23 0.3	22:00 4.3	
	Tu	26	3:49 0.9	10:07 4.0	16:11 0.4	22:50 4.5	
	W	27	4:50 0.7	11:04 3.9	17:00 0.5	23:40 4.7	
	Th	28	5:51 0.5	12:00 3.9	17:52 0.5	. . .	
N	F	29	0:34 5.0	6:50 0.3	13:00 3.5	18:43 0.5	
	S	30	1:25 5.3	7:50 0.0	13:57 4.0	19:41 0.5	
	S	31	2:16 5.5	8:44 —0.2	14:51 4.1	20:30 0.4	

FEBRUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
○ P	M	1	3:06 5.8	9:38 —0.4	15:43 4.2	21:23 0.4	
	Tu	2	3:56 5.9	10:26 —0.6	16:34 4.3	22:16 0.3	
	W	3	4:47 5.9	11:15 —0.6	17:22 4.4	23:07 0.3	
E	Th	4	5:38 5.8	●12:04 —0.6	18:12 4.5	. . .	
	F	5	0:02 0.2	6:30 5.6	12:52 —0.5	19:02 4.6	
	S	6	0:55 0.3	7:20 5.3	13:40 —0.3	19:55 4.7	
	S	7	1:52 0.3	8:13 5.0	14:30 —0.1	20:47 4.7	
☾	M	8	2:52 0.4	9:09 4.6	15:17 0.2	21:41 4.7	
	Tu	9	3:53 0.4	10:05 4.3	16:09 0.4	22:36 4.8	
	W	10	4:57 0.5	11:04 4.0	17:00 0.6	23:30 4.8	
S	Th	11	6:00 0.5	12:00 3.8	17:54 0.7	. . .	
	F	12	0:23 4.9	7:02 0.5	13:00 3.7	18:47 0.8	
	S	13	1:15 5.0	7:52 0.5	13:53 3.7	19:38 0.8	
	S	14	2:04 5.0	8:42 0.4	14:40 3.7	20:27 0.8	
A	M	15	2:52 5.1	9:26 0.3	15:28 3.7	21:11 0.8	
●	Tu	16	3:37 5.1	10:06 0.2	16:10 3.8	21:55 0.8	
	W	17	4:19 5.0	10:55 0.2	16:52 3.9	22:37 0.8	
	Th	18	5:02 4.9	11:22 0.2	17:32 4.0	23:15 0.8	
E	F	19	5:43 4.8	12:00 0.1	18:15 4.1	23:58 0.8	
	S	20	6:27 4.7	12:42 0.2	18:59 4.2	. . .	
	S	21	0:44 0.7	7:12 4.5	13:22 0.2	19:42 4.3	
	M	22	1:32 0.7	7:57 4.3	14:02 0.4	20:30 4.3	
	Tu	23	2:27 0.6	8:48 4.1	14:46 0.5	21:20 4.4	
☽	W	24	3:23 0.5	9:42 4.0	15:32 0.6	22:13 4.6	
	Th	25	4:22 0.4	10:40 3.9	16:24 0.7	23:07 4.8	
N	F	26	5:25 0.3	11:39 3.9	17:22 0.7	. . .	
	S	27	0:02 5.0	6:25 0.1	12:38 4.0	18:20 0.7	
	S	28	0:57 5.2	7:22 —0.1	13:35 4.1	19:17 0.5	
	M	29	1:52 5.4	8:18 —0.2	14:28 4.2	20:15 0.4	

MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	2:44 5.6	9:11 —0.4	15:20 4.4	21:08 0.2	
	W	2	3:37 5.7	10:00 —0.5	16:09 4.6	22:00 0.1	
E	Th	3	4:28 5.7	10:50 —0.5	16:58 4.7	22:52 0.0	
	F	4	5:19 5.5	11:35 —0.4	17:47 4.8	23:45 —0.1	
	S	5	6:09 5.3	12:22 —0.3	18:35 4.8	. . .	
	S	6	0:42 0.0	7:00 5.0	13:10 0.0	19:26 4.9	
	M	7	1:35 0.0	7:52 4.7	13:56 0.2	20:17 4.9	
☾	Tu	8	2:31 0.2	8:47 4.4	14:44 0.5	21:09 4.8	
S	W	9	3:30 0.3	9:43 4.1	15:36 0.7	22:02 4.8	
	Th	10	4:31 0.4	10:40 3.9	16:30 0.9	22:59 4.8	
	F	11	5:31 0.5	11:36 3.7	17:27 0.9	23:53 4.8	
	S	12	6:27 0.5	12:33 3.7	18:23 1.0	. . .	
	S	13	0:45 4.8	7:18 0.5	13:26 3.7	19:17 0.9	
A	M	14	1:35 4.8	8:06 0.4	14:14 3.8	20:06 0.9	
	Tu	15	2:22 4.8	8:48 0.3	14:59 4.0	20:52 0.8	
	W	16	3:08 4.8	9:30 0.2	15:40 4.1	21:35 0.7	
● E	Th	17	3:52 4.8	10:09 0.2	16:21 4.2	22:16 0.6	
	F	18	4:35 4.7	10:47 0.2	17:02 4.4	22:57 0.5	
	S	19	5:17 4.6	11:23 0.2	17:43 4.4	23:41 0.4	
	S	20	6:01 4.5	12:08 0.3	18:25 4.5	. . .	
	M	21	0:27 0.3	6:47 4.3	12:42 0.4	19:10 4.6	
	Tu	22	1:15 0.2	7:35 4.2	13:24 0.6	19:57 4.6	
	W	23	2:07 0.2	8:28 4.1	14:07 0.7	20:47 4.7	
N ☽	Th	24	3:02 0.2	9:22 4.0	14:57 0.9	21:41 4.8	
	F	25	4:02 0.1	10:20 3.9	15:57 0.9	22:38 4.8	
	S	26	5:00 0.0	11:18 4.0	16:57 0.9	23:35 4.9	
	S	27	6:00 —0.1	12:17 4.0	18:00 0.8	. . .	
	M	28	0:32 5.1	6:57 —0.1	13:13 4.2	19:03 0.6	
P	Tu	29	1:29 5.2	7:50 —0.2	14:06 4.5	19:58 0.3	
E	W	30	2:22 5.3	8:43 —0.3	14:56 4.7	20:53 0.1	
○	Th	31	3:16 5.3	9:32 —0.3	15:44 4.9	21:48 —0.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Horn Mean Local Civil, for the meridian 67° 38′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	4:07 5.3	10:20 —0.3	16:31 5.0	22:38 —0.2
	S	2	4:58 5.1	11:03 —0.1	17:18 5.1	23:31 —0.3
	S	3	5:48 5.0	11:48 0.1	18:06 5.2	. . . . . .
	M	4	0:24 —0.3	6:40 4.7	12:35 0.4	18:55 5.1
	Tu	5	1:17 —0.1	7:31 4.3	13:20 0.6	19:45 5.0
S	W	6	2:10 0.0	8:24 4.1	14:09 0.8	20:37 4.9
☾	Th	7	3:05 0.2	9:19 3.9	15:00 1.0	21:30 4.8
	F	8	4:00 0.3	10:15 3.7	15:56 1.2	22:24 4.7
	S	9	4:56 0.4	11:12 3.7	16:56 1.2	23:17 4.6
A	S	10	5:46 0.4	12:05 3.8	17:55 1.2	. . . . . .
	M	11	0:11 4.5	6:36 0.4	12:56 3.9	18:52 1.1
	Tu	12	1:08 4.5	7:23 0.3	13:42 4.1	19:42 0.9
E	W	13	1:50 4.5	8:07 0.3	14:26 4.3	20:29 0.8
	Th	14	2:37 4.5	8:48 0.2	15:08 4.5	21:13 0.6
●	F	15	3:23 4.5	9:30 0.3	15:50 4.6	21:56 0.4
	S	16	4:07 4.4	10:07 0.3	16:31 4.8	22:39 0.2
	S	17	4:52 4.4	10:47 0.4	17:12 4.9	23:24 0.1
	M	18	5:38 4.3	11:25 0.5	17:55 4.9	. . . . . .
	Tu	19	0:12 0.0	6:25 4.2	12:04 0.7	18:42 4.9
N	W	20	1:00 —0.1	7:16 4.1	12:47 0.8	19:28 4.9
	Th	21	1:52 —0.1	8:08 4.0	13:37 0.9	20:18 4.9
	F	22	2:46 —0.2	9:05 4.0	14:30 1.0	21:12 4.9
☽	S	23	3:42 —0.2	10:02 3.9	15:21 1.1	22:10 4.9
	S	24	4:39 —0.2	11:00 4.0	16:37 1.0	23:10 4.9
	M	25	5:34 —0.2	11:57 4.2	17:44 0.8	. . . . . .
P	Tu	26	0:07 5.0	6:30 —0.2	12:52 4.5	18:47 0.6
E	W	27	1:05 5.0	7:22 —0.2	13:44 4.7	19:46 0.3
	Th	28	2:00 4.9	8:14 —0.2	14:32 4.9	20:42 0.4
○	F	29	2:55 4.9	9:02 —0.1	15:20 5.2	21:35 —0.2
	S	30	3:47 4.8	9:47 0.1	16:05 5.3	22:27 —0.3

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	MAY.					
	S	1	4:38 4.6	10:30 0.2	16:52 5.4	23:18 —0.3
	M	2	5:27 4.4	11:17 0.4	17:38 5.4	. . . . . .
S	Tu	3	0:07 —0.2	6:18 4.2	12:02 0.6	18:27 5.3
	W	4	0:59 —0.2	7:09 4.0	12:50 0.8	19:17 5.2
	Th	5	1:48 —0.1	8:00 3.8	13:40 1.0	20:07 5.0
	F	6	2:37 0.0	8:52 3.7	14:27 1.2	20:57 4.8
☾	S	7	3:27 0.2	9:46 3.7	15:22 1.3	21:50 4.6
A	S	8	4:18 0.2	10:40 3.7	16:22 1.3	22:40 4.4
	M	9	5:06 0.3	11:29 3.9	17:24 1.3	23:34 4.3
	Tu	10	5:52 0.3	12:20 4.1	18:21 1.2	. . . . . .
E	W	11	0:25 4.3	6:38 0.4	13:07 4.4	19:12 0.9
	Th	12	1:14 4.2	7:24 0.4	13:52 4.5	20:02 0.7
	F	13	2:05 4.2	8:07 —0.1	14:35 4.8	20:48 0.5
	S	14	2:53 4.2	8:50 0.4	15:19 5.0	21:34 0.2
●	S	15	3:42 4.2	9:28 0.4	16:02 5.1	22:20 0.1
	M	16	4:26 4.2	10:11 0.5	16:46 5.2	23:06 —0.2
N	Tu	17	5:15 4.2	10:52 0.6	17:29 5.3	23:54 —0.3
	W	18	6:06 4.1	11:35 0.8	18:15 5.3	. . . . . .
	Th	19	0:45 —0.4	6:57 4.0	12:20 0.9	19:11 5.2
	F	20	1:37 —0.4	7:50 4.0	13:16 1.0	19:54 5.2
	S	21	2:29 —0.4	8:46 4.0	14:12 1.0	20:49 5.1
☽ P	S	22	3:21 —0.3	9:42 4.0	15:14 1.0	21:46 5.0
	M	23	4:15 —0.3	10:38 4.2	16:21 0.9	22:45 4.9
E	Tu	24	5:09 —0.2	11:33 4.4	17:29 0.7	23:44 4.8
	W	25	6:02 —0.1	12:27 4.7	18:32 0.5	. . . . . .
	Th	26	0:44 4.6	6:53 0.0	13:18 4.9	19:32 0.2
	F	27	1:40 4.5	7:44 0.1	14:07 5.2	20:29 0.3
	S	28	2:34 4.4	8:31 0.2	14:55 5.4	21:21 —0.1
○	S	29	3:27 4.3	9:17 0.3	15:42 5.5	22:12 —0.1
	M	30	4:17 4.2	10:12 0.4	16:28 5.5	23:02 —0.2
S	Tu	31	5:07 4.0	10:49 0.6	17:15 5.5	23:50 —0.2

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	JUNE.					
	W	1	5:56 3.8	11:32 0.8	18:00 4.4	. . . . . .
	Th	2	0:37 0.5	6:45 3.7	12:17 1.0	18:48 5.2
	F	3	1:22 0.5	7:33 3.7	13:02 1.2	19:36 5.0
	S	4	2:08 0.0	8:22 3.7	13:53 1.3	20:22 4.7
A	S	5	2:54 0.1	9:12 3.7	14:47 1.4	21:12 4.5
☾	M	6	3:40 0.2	10:14 3.8	15:43 1.4	22:02 4.3
E	Tu	7	4:25 0.2	10:55 4.0	16:42 1.3	22:55 4.2
	W	8	5:10 0.3	11:43 4.3	17:42 1.1	23:48 4.1
	Th	9	5:56 0.4	12:32 4.5	18:37 0.9	. . . . . .
	F	10	0:40 4.0	6:42 0.4	13:18 4.7	19:31 0.7
	S	11	1:32 4.0	7:27 0.4	14:04 5.0	20:21 0.4
	S	12	2:24 4.0	8:12 0.4	14:49 5.2	21:09 0.3
●	M	13	3:15 4.1	8:55 0.5	15:33 5.4	21:59 —0.2
N	Tu	14	4:02 4.1	9:40 0.5	16:19 5.5	22:47 —0.4
	W	15	4:54 4.1	10:27 0.6	17:06 5.6	23:36 —0.5
	Th	16	5:44 4.0	11:12 0.7	17:54 5.6	. . . . . .
P	F	17	0:26 —0.6	6:36 4.0	12:03 0.8	18:44 5.5
	S	18	1:16 —0.6	7:29 4.1	12:59 0.7	19:35 5.4
	S	19	2:07 —0.5	8:22 4.1	13:57 0.9	20:28 5.2
☽ E	M	20	2:57 —0.4	9:18 4.2	14:58 0.8	21:25 5.0
	Tu	21	3:50 —0.3	10:12 4.4	16:03 0.8	22:22 4.8
	W	22	4:40 —0.1	11:07 4.6	17:12 0.6	23:21 4.6
	Th	23	5:32 0.0	12:00 4.8	18:15 0.5	. . . . . .
	F	24	0:21 4.3	6:25 0.2	12:52 5.0	19:16 0.4
	S	25	1:17 4.2	7:15 0.3	13:42 5.2	20:12 0.2
	S	26	2:14 4.0	8:04 0.4	14:32 5.4	21:07 0.1
S ○	M	27	3:06 3.9	8:51 0.5	15:20 5.5	21:58 0.0
	Tu	28	3:56 3.8	9:38 0.6	16:06 5.5	22:45 0.0
	W	29	4:47 3.7	10:22 0.7	16:52 5.5	23:27 —0.1
	Th	30	5:32 3.7	11:08 0.9	17:37 5.4	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Horn Mean Local Civil, for the meridian 67° 33′ W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| JULY. | | |

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	1:42	3:22	14:40	20:58		Tu	1	3:00	9:41	16:10	22:30	E	Th	1	3:47	10:16	16:40	23:04
			0.7	4.7	0.2	3.9				1.1	4.9	—0.1	4.0				1.0	4.9	—0.2	4.4
☾	S	2	2:30	9:15	15:37	21:55		W	2	4:05	10:40	17:06	23:28	P	F	2	4:55	11:14	17:32	23:58
			0.9	4.7	0.1	3.9				1.0	4.9	—0.2	4.2				0.8	4.7	—0.1	4.6
	M	3	3:25	10:10	16:33	22:54		Th	3	5:10	11:39	18:02	. . .		S	3	5:58	12:12	18:22	. . .
			1.0	4.7	0.0	3.9				0.9	5.0	—0.2	. . .				0.6	4.6	0.0	. . .
	Tu	4	4:27	11:06	17:31	23:51	E	F	4	0:23	6:15	12:36	18:54		S	4	0:50	7:02	13:12	19:14
			1.0	4.8	0.0	4.0				4.4	0.7	4.9	—0.2				4.9	0.3	4.5	0.0
	W	5	5:31	12:04	18:27	. . .	P	S	5	1:15	7:17	13:32	19:43		M	5	1:40	8:00	14:04	20:03
			0.9	5.0	—0.1	. . .				4.7	0.4	4.9	—0.1				5.2	0.1	4.4	0.2
	Th	6	0:46	6:32	13:01	19:22		S	6	2:05	8:15	14:28	20:35	●	Tu	6	2:30	8:57	15:02	20:50
			4.2	0.7	5.1	0.6				5.0	0.0	4.8	—0.1				5.4	—0.1	4.3	0.2
	F	7	1:40	7:32	13:56	20:13	●	M	7	2:55	9:10	15:21	21:20		W	7	3:18	9:48	15:54	21:40
			4.5	0.4	5.2	—0.3				5.2	—0.2	4.7	·0.0				5.6	—0.2	4.2	0.4
P E	S	8	2:30	8:30	14:50	21:04		Tu	8	3:42	10:04	16:18	22:07	S	Th	8	4:06	10:40	16:43	22:27
			4.7	0.2	5.2	—0.3				5.4	—0.3	4.6	0.1				5.7	—0.3	4.0	0.5
●	S	9	3:19	9:24	15:42	21:52		W	9	4:30	10:55	17:05	22:52		F	9	4:54	11:30	17:34	23:12
			4.9	—0.1	5.2	—0.3				5.6	—0.4	4.5	0.3				5.7	—0.3	3.9	0.7
	M	10	4:07	10:20	16:33	22:38	S	Th	10	5:16	11:45	17:56	23:40		S	10	5:41	12:16	18:24	23:58
			5.1	—0.3	5.1	—0.1				5.6	—0.4	4.2	0.5				5.6	—0.2	3.8	0.9
	Tu	11	4:55	11:09	17:25	23:24		F	11	6:05	12:37	18:47	. . .		S	11	6:28	13:05	19:12	. . .
			5.3	—0.4	5.0	0.1				5.5	—0.3	4.0	. . .				5.4	—0.2	3.7	. . .
	W	12	5:42	12:00	18:17	. . .		S	12	0:26	6:53	13:28	19:39		M	12	0:47	7:17	13:50	20:02
			5.4	—0.4	4.7	. . .				0.8	5.4	—0.2	3.9				1.0	5.2	—0.1	3.8
	Th	13	0:10	6:31	12:54	19:08		S	13	1:15	7:43	14:20	20:32		Tu	13	1:37	8:04	14:36	20:53
			0.3	5.3	—0.3	4.4				1.0	5.2	—0.1	3.8				1.2	4.9	0.0	3.8
S	F	14	0:57	7:21	13:48	20:01	☽	M	14	2:08	8:36	15:10	21:25	☽ A	W	14	2:19	8:53	15:21	21:44
			0.5	5.2	—0.2	4.2				1.1	5.0	0.0	3.7				1.2	4.6	0.1	3.9
	S	15	1:47	8:13	14:42	20:57		Tu	15	3:03	9:27	15:58	22:20	E	Th	15	3:26	9:44	16:06	22:34
			0.8	5.1	0.0	3.9				1.2	4.7	0.1	3.8				1.3	4.4	0.2	4.0
☽	S	16	2:40	9:06	15:37	21:53		W	16	4:06	10:20	16:47	23:12		F	16	4:25	10:35	16:51	23:24
			1.0	5.0	0.0	3.8				1.3	4.5	0.2	3.9				1.3	4.2	0.3	4.2
	M	17	3:36	10:00	16:31	22:50	A	Th	17	5:07	11:14	17:35	. . .		S	17	5:24	11:25	17:36	. . .
			1.1	4.8	0.2	3.8				1.3	4.4	0.3	. . .				1.2	4.0	0.4	. . .
	Tu	18	4:36	10:55	17:25	23:45	E	F	18	0:02	6:06	12:05	18:22		S	18	0:12	6:21	12:20	18:23
			1.1	4.7	0.3	3.8				4.1	1.1	4.2	0.4				4.4	1.0	3.9	0.4
	W	19	5:37	11:50	18:17	. . .		S	19	0:49	7:00	12:57	19:03		M	19	1:00	7:13	13:12	19:07
			1.1	4.6	0.3	. . .				4.3	1.0	4.2	0.4				4.7	0.8	3.9	0.5
A	Th	20	0:36	6:35	12:43	19:02		S	20	1:34	7:48	13:47	19:48		Tu	20	1:45	8:04	14:03	19:52
			3.9	1.1	4.5	0.3				4.5	0.8	4.1	0.4				4.9	0.5	3.8	0.5
E	F	21	1:24	7:28	13:32	19:49		M	21	2:17	8:33	14:35	20:29		W	21	2:30	8:50	14:54	20:33
			4.1	0.9	4.4	0.3				4.7	0.6	4.0	0.4				5.1	0.3	3.9	0.6
	S	22	2:08	8:18	14:20	20:30	○	Tu	22	3:00	9:20	15:21	21:10	○ N	Th	22	3:15	9:38	15:42	21:20
			4.3	0.8	4.4	0.3				4.9	0.4	4.0	0.5				5.3	0.0	3.9	0.6
	S	23	2:50	9:01	15:07	21:10		W	23	3:44	10:02	16:02	21:47		F	23	3:57	10:27	16:31	22:04
			4.5	0.6	4.3	0.4				5.1	0.2	4.0	0.6				5.5	—0.2	3.9	0.7
○	M	24	3:32	9:43	15:50	21:47		Th	24	4:26	10:50	16:54	22:27		S	24	4:44	11:13	17:21	22:50
			4.6	0.4	4.3	0.4				5.2	—0.1	4.0	0.7				5.5	—0.4	4.0	0.8
	Tu	25	4:12	10:25	16:33	22:25	N	F	25	5:09	11:34	17:42	23:08		S	25	5:31	12:02	18:12	23:39
			4.8	0.3	4.2	0.5				5.3	—0.2	4.0	0.8				5.6	—0.5	4.0	0.8
	W	26	4:55	11:08	17:20	23:00		S	26	5:53	12:22	18:32	23:53		M	26	6:20	12:51	19:02	. . .
			4.9	0.2	4.2	0.6				5.3	—0.3	3.9	0.9				5.5	—0.5	4.0	. . .
	Th	27	5:36	11:53	18:05	23:38		S	27	6:41	13:12	19:24	. . .	P	Tu	27	0:34	7:11	13:42	19:55
			4.9	0.4	4.1	0.7				5.3	—0.4	3.9	. . .				0.8	5.4	—0.5	4.1
	F	28	6:20	12:40	18:49	. . .		M	28	0:42	7:30	14:03	20:19		W	28	1:27	8:02	14:30	20:47
			5.0	0.5	4.0	. . .				1.0	5.2	—0.4	3.9				0.8	5.2	—0.4	4.2
N	S	29	0:21	7:05	13:30	19:43		Tu	29	1:40	8:22	14:58	21:13	E ☾	Th	29	2:25	8:57	15:20	21:40
			0.9	4.9	0.5	3.9				1.0	5.1	—0.4	4.0				0.8	5.0	—0.3	4.4
	S	30	1:08	7:52	14:21	20:38	☾	W	30	2:42	9:18	15:47	22:09		F	30	3:27	9:52	16:12	22:37
			1.0	4.9	—0.1	3.9				1.0	5.0	—0.3	4.2				0.8	4.8	—0.2	4.6
☾	M	31	1:58	8:46	15:16	21:35									S	31	4:35	10:51	17:02	23:31
			1.1	4.9	—0.2	3.9											0.6	4.6	0.0	4.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Horn Mean Local Civil for the meridian 67° 33′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
JANUARY.						
	F	1	2:00 0.0	8:00 3.4	13:53 0.2	20:15 4.6
N	S	2	2:48 —0.3	8:50 3.5	14:39 0.1	21:02 4.9
○	S	3	3:35 —0.5	9:37 3.6	15:24 0.0	21:49 5.0
P	M	4	4:22 —0.6	10:23 3.6	16:12 0.0	22:36 5.0
	Tu	5	5:10 —0.7	11:12 3.7	17:00 0.0	23:23 4.9
	W	6	5:56 —0.6	12:02 3.7	17:50 0.1	. . . . . .
	Th	7	0:13 4.7	6:45 —0.4	12:56 3.6	18:47 0.3
E	F	8	1:05 4.4	7:36 —0.3	13:50 3.6	19:50 0.4
☾	S	9	2:03 4.0	8:27 0.0	14:47 3.6	21:00 0.5
	S	10	3:04 3.6	9:20 0.2	15:47 3.6	22:15 0.6
	M	11	4:10 3.3	10:20 0.3	16:50 3.7	23:22 0.6
	Tu	12	5:17 3.4	11:23 0.3	17:50 3.9	. . . . . .
	W	13	0:32 0.5	6:27 3.1	12:21 0.3	18:44 4.1
	Th	14	1:35 0.4	7:26 3.1	13:15 0.2	19:34 4.3
S	F	15	2:25 0.3	8:18 3.1	14:00 0.1	20:20 4.4
	S	16	3:09 0.2	9:04 3.2	14:46 0.2	21:02 4.5
●	S	17	3:47 0.1	9:42 3.2	15:25 0.2	21:42 4.5
	M	18	4:22 0.1	10:19 3.2	16:00 0.3	22:19 4.4
A	Tu	19	4:54 0.1	10:54 3.1	16:34 0.5	22:55 4.2
	W	20	5:28 0.2	11:24 3.1	17:07 0.6	23:29 4.1
	Th	21	5:58 0.2	11:58 3.1	17:40 0.8	. . . . . .
E	F	22	0:06 3.8	6:32 0.3	12:33 3.1	18:17 0.9
	S	23	0:45 3.5	7:10 0.4	13:14 3.1	19:07 1.0
	S	24	1:26 3.3	7:46 0.6	14:01 3.1	20:00 1.0
☽	M	25	2:14 3.0	8:32 0.7	14:58 3.2	21:04 1.0
	Tu	26	3:13 2.9	9:27 0.8	16:00 3.3	22:24 1.0
	W	27	4:27 2.9	10:33 0.8	17:05 3.5	23:40 0.7
	Th	28	5:39 2.9	11:42 0.7	18:06 3.9	. . . . . .
N	F	29	0:43 0.4	6:42 3.1	12:40 0.4	19:02 4.3
	S	30	1:41 0.0	7:42 3.3	13:35 0.1	19:56 4.7
	S	31	2:32 —0.3	8:32 3.5	14:25 —0.1	20:43 5.0

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
FEBRUARY.						
○ P	M	1	3:17 —0.5	9:22 3.7	15:13 —0.3	21:32 5.1
	Tu	2	4:07 —0.7	10:09 3.9	16:00 —0.4	22:19 5.1
	W	3	4:47 —0.7	10:53 4.0	16:48 —0.4	23:04 5.0
E	Th	4	5:30 —0.7	11:40 4.0	17:37 —0.2	23:53 4.7
	F	5	6:14 —0.5	12:26 4.0	18:32 0.0	. . . . . .
	S	6	0:44 4.3	7:02 —0.2	13:18 3.9	19:27 0.2
	S	7	1:40 3.8	7:50 0.1	14:11 3.8	20:28 0.5
☾	M	8	2:36 3.5	8:45 0.4	15:12 3.6	21:40 0.7
	Tu	9	3:42 3.1	9:47 0.6	16:18 3.6	23:00 0.8
	W	10	4:56 2.9	10:53 0.6	17:22 3.7	. . . . . .
S	Th	11	0:17 0.7	6:10 2.9	11:59 0.6	18:22 3.8
	F	12	1:21 0.6	7:13 2.9	12:56 0.4	19:12 4.0
	S	13	2:10 0.4	8:05 3.0	13:44 0.3	20:00 4.2
	S	14	2:50 0.3	8:45 3.2	14:27 0.2	20:40 4.3
A	M	15	3:25 0.2	9:20 3.3	15:07 0.2	21:18 4.3
●	Tu	16	3:54 0.1	9:53 3.3	15:42 0.3	21:55 4.3
	W	17	4:22 0.1	10:24 3.4	16:15 0.3	22:30 4.2
	Th	18	4:50 0.1	10:54 3.4	16:47 0.4	23:14 4.0
E	F	19	5:20 0.1	11:24 3.4	17:20 0.5	23:38 3.8
	S	20	5:52 0.2	11:56 3.4	18:00 0.6	. . . . . .
	S	21	0:15 3.5	6:24 0.4	12:33 3.4	18:39 0.6
	M	22	0:53 3.3	7:02 0.6	13:20 3.3	19:30 0.7
	Tu	23	1:42 3.2	7:50 0.8	14:13 3.3	20:40 0.8
☽	W	24	2:42 2.9	8:47 0.9	15:20 3.3	21:56 0.8
	Th	25	3:59 2.8	10:00 1.0	16:33 3.5	23:15 0.7
N	F	26	5:17 2.9	11:14 0.8	17:40 3.8	. . . . . .
	S	27	0:23 0.4	6:27 3.1	12:22 0.5	18:41 4.2
	S	28	1:20 0.0	7:25 3.4	13:20 0.1	19:35 4.6
	M	29	2:10 —0.3	8:15 3.8	14:12 —0.2	20:25 4.8

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
MARCH.						
P ○	Tu	1	2:56 —0.5	9:01 4.1	15:02 —0.5	21:12 5.0
	W	2	3:38 —0.7	9:45 4.3	15:47 —0.6	22:00 5.0
E	Th	3	4:19 —0.7	10:30 4.4	16:37 —0.6	22:48 4.8
	F	4	5:02 —0.6	11:14 4.4	17:23 —0.5	23:35 4.5
	S	5	5:44 —0.4	11:57 4.3	18:09 —0.3	. . . . . .
	S	6	0:22 4.2	6:30 —0.1	12:44 4.1	19:02 0.0
	M	7	1:12 3.7	7:18 0.3	13:37 3.8	20:03 0.4
☾	Tu	8	2:09 3.2	8:12 0.6	14:37 3.6	21:13 0.7
S	W	9	3:17 2.9	9:16 0.8	15:42 3.5	22:35 0.9
	Th	10	4:34 2.7	10:27 0.9	16:50 3.5	23:50 0.9
	F	11	5:50 2.8	11:35 0.8	17:52 3.6	. . . . . .
	S	12	0:52 0.7	6:52 2.9	12:34 0.6	18:47 3.7
	S	13	1:38 0.5	7:39 3.1	13:25 0.5	19:33 3.9
A	M	14	2:15 0.3	8:17 3.3	14:07 0.3	20:14 4.0
	Tu	15	2:47 0.2	8:51 3.5	14:46 0.2	20:55 4.1
	W	16	3:16 0.1	9:22 3.6	15:20 0.2	21:31 4.1
● E	Th	17	3:46 0.1	9:51 3.7	15:53 0.1	22:05 4.0
	F	18	4:13 0.1	10:23 3.7	16:27 0.2	22:38 3.9
	S	19	4:45 0.1	10:56 3.8	17:02 0.2	23:16 3.8
	S	20	5:16 0.3	11:28 3.7	17:38 0.3	23:50 3.6
	M	21	5:50 0.4	12:07 3.6	18:25 0.4	. . . . . .
	Tu	22	0:32 3.3	6:28 0.6	12:51 3.5	19:19 0.5
	W	23	1:20 3.1	7:15 0.9	13:47 3.5	20:22 0.6
N ☽	Th	24	2:22 2.9	8:14 1.0	14:52 3.4	21:36 0.7
	F	25	3:42 2.8	9:34 1.1	16:05 3.5	22:52 0.6
	S	26	5:02 2.9	10:56 0.8	17:15 3.8	23:59 0.3
	S	27	6:10 3.2	12:05 0.5	18:17 4.1	. . . . . .
	M	28	0:54 0.0	7:05 3.6	13:05 0.0	19:14 4.4
P	Tu	29	1:44 —0.3	7:53 4.0	13:57 —0.3	20:08 4.6
E	W	30	2:27 —0.5	8:37 4.3	14:47 —0.6	20:57 4.7
○	Th	31	3:12 —0.6	9:22 4.6	15:32 —0.7	21:44 4.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Valparaiso Mean Local Civil for the meridian 71° 38′ W.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator: N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	3:54	10:05	16:17	22:28		S	1	4:07	10:22	16:51	22:54		W	1	5:02	11:28	18:07	. . .
			—0.6	4.6	—0.7	4.5				—0.2	4.7	—0.5	3.8				0.5	4.4	0.1	. . .
	S	2	4:36	10:48	17:02	23:14		M	2	4:47	11:05	17:38	23:39		Th	2	0:06	5:42	12:10	18:52
			—0.5	4.6	—0.6	4.2				0.0	4.6	—0.2	3.4				3.0	0.7	4.1	0.3
	S	3	5:16	11:31	17:50	11:59	S	Tu	3	5:28	11:50	18:27	. . .		F	3	0:53	6:26	12:55	19:40
			—0.2	4.4	—0.4	3.8				0.3	4.3	0.0	. . .				2.9	1.0	3.8	0.4
	M	4	5:59	12:15	18:44	. . .		W	4	0:27	6:10	12:38	19:20		S	4	1:47	7:16	13:42	20:28
			0.1	4.2	0.0	. . .				3.2	0.7	4.0	0.3				2.8	1.2	3.5	0.6
	Tu	5	0:47	6:43	13:07	19:42		Th	5	1:20	7:00	13:28	20:13	A	S	5	2:42	8:14	14:36	21:20
			3.4	0.5	3.9	0.4				2.9	1.0	3.7	0.6				2.7	1.3	3.2	0.7
S	W	6	1:45	7:36	14:02	20:45		F	6	2:22	7:58	14:22	21:14	☾	M	6	3:42	9:24	15:35	22:08
			4.0	0.8	3.6	0.7				2.7	1.2	3.4	0.7				2.7	1.4	3.1	0.7
☾	Th	7	2:50	8:42	15:03	22:00	☾	S	7	3:32	9:07	15:22	22:14	E	Tu	7	4:33	10:33	16:32	22:56
			2.7	1.0	3.4	0.8				2.6	1.3	3.2	0.8				2.9	1.3	3.0	0.7
	F	8	4:07	9:53	16:10	23:10	A	S	8	4:37	10:25	16:28	23:10		W	8	5:22	11:37	17:30	23:44
			2.6	1.1	3.3	0.8				2.7	1.3	3.2	0.7				3.1	1.1	3.0	0.7
	S	9	5:22	11:06	17:14	. . .		M	9	5:34	11:29	17:30	23:56		Th	9	6:07	12:27	18:23	. . .
			2.7	1.1	3.3	. . .				2.9	1.1	3.2	0.7				3.4	0.8	3.1	. . .
A	S	10	0:06	6:19	12:07	18:10		Tu	10	6:18	12:24	18:22	. . .		F	10	0:32	6:52	13:17	19:16
			0.7	2.9	0.9	3.4				3.1	0.9	3.3	. . .				0.5	3.7	0.5	3.3
	M	11	0:52	7:03	13:00	19:02	E	W	11	0:38	6:56	13:08	19:07		S	11	1:20	7:36	14:03	20:02
			0.6	3.1	0.7	3.6				0.5	3.4	0.6	3.4				0.4	4.0	0.2	3.3
	Tu	12	1:30	7:40	13:42	19:48		Th	12	1:19	7:32	13:47	19:50		S	12	2:02	8:18	14:50	20:45
			0.4	3.4	0.5	3.7				0.4	3.6	0.3	3.6				0.3	4.3	0.0	3.4
E	W	13	2:04	8:14	14:21	20:26		F	13	2:00	8:10	14:28	20:30	●	M	13	2:40	9:00	15:33	21:35
			0.2	3.6	0.3	3.8				0.3	3.9	0.1	3.6				0.2	4.5	—0.3	3.5
	Th	14	2:36	8:47	14:55	21:01		S	14	2:35	8:48	15:07	21:10	N	Tu	14	3:21	9:46	16:20	22:17
			0.1	3.8	0.1	3.8				0.2	4.1	—0.1	3.6				0.2	4.7	—0.4	3.5
●	F	15	3:12	9:21	15:30	21:37	●	S	15	3:07	9:24	15:47	21:50		W	15	4:05	10:28	17:03	23:04
			0.1	3.9	0.0	3.9				0.2	4.3	—0.2	3.6				0.2	4.7	—0.4	3.5
	S	16	3:42	9:43	16:06	22:12		M	16	3:41	10:03	16:32	22:31		Th	16	4:46	11:16	17:51	23:54
			0.1	4.0	—0.1	3.8				0.3	4.4	—0.3	3.5				0.3	4.7	—0.4	3.4
	S	17	4:15	10:27	16:45	22:50	N	Tu	17	4:17	10:46	17:18	23:16	P	F	17	5:35	12:05	18:42	. . .
			0.2	4.0	—0.1	3.7				0.4	4.4	—0.3	3.4				0.4	4.5	—0.3	. . .
	M	18	4:45	11:05	17:27	23:30		W	18	4:57	11:30	18:06	. . .		S	18	0:47	6:28	12:57	19:32
			0.3	4.0	0.0	3.5				0.5	4.3	—0.2	. . .				3.4	0.5	4.3	—0.2
	Tu	19	5:17	11:45	18:16	. . .		Th	19	0:05	5:41	12:20	19:00		S	19	1:43	7:32	13:53	20:27
			0.5	4.0	0.1	. . .				3.3	0.7	4.2	—0.1				3.3	0.7	4.0	0.0
N	W	20	0:14	6:00	12:34	19:12		F	20	1:01	6:37	13:14	19:56	☽ E	M	20	2:43	8:42	14:57	21:22
			3.3	0.7	3.8	0.2				3.1	0.8	4.0	0.1				3.4	0.7	3.7	0.1
	Th	21	1:09	6:49	13:28	20:10		S	21	2:05	7:43	14:12	20:56		Tu	21	3:44	9:57	16:08	22:22
			3.1	0.9	3.7	0.3				3.1	0.9	3.8	0.2				3.5	0.6	3.5	0.2
	F	22	2:14	7:55	14:31	21:18	☽ P	S	22	3:12	9:01	15:20	21:57		W	22	4:46	11:05	17:09	23:19
			2.9	1.0	3.6	0.4				3.1	0.9	3.7	0.2				3.7	0.5	3.4	0.2
☽	S	23	3:30	9:17	15:41	22:26		M	23	4:18	10:18	16:30	22:53		Th	23	5:42	12:14	18:14	. . .
			2.9	1.0	3.6	0.4				3.3	0.7	3.7	0.2				3.9	0.4	3.4	. . .
	S	24	4:45	10:38	16:52	23:30	E	Tu	24	5:18	11:30	17:36	23:51		F	24	0:17	6:37	13:14	19:14
			3.1	0.8	3.7	0.2				3.6	0.5	3.7	0.1				0.1	4.2	0.1	3.4
	M	25	5:48	11:50	17:58	. . .		W	25	6:10	12:28	18:33	. . .		S	25	1:12	7:28	14:10	20:09
			3.4	0.5	3.9	. . .				3.9	0.1	3.8	. . .				0.0	4.5	0.0	3.4
P	Tu	26	0:24	6:40	12:50	18:57		Th	26	0:45	7:00	13:25	19:28		S	26	2:00	8:18	15:00	20:57
			0.0	3.8	0.1	4.1				0.0	4.2	—0.1	3.8				0.0	4.6	—0.1	3.4
E	W	27	1:12	7:27	13:42	19:50		F	27	1:35	7:48	14:17	20:22	S ○	M	27	2:45	9:02	15:43	21:41
			—0.2	4.1	—0.2	4.2				—0.2	4.5	—0.3	3.8				0.0	4.7	—0.1	3.3
	Th	28	2:01	8:12	14:27	20:37		S	28	2:22	8:34	15:06	21:07		Tu	28	3:25	9:45	16:27	22:22
			—0.3	4.4	—0.5	4.3				—0.2	4.7	—0.4	3.7				0.1	4.7	—0.1	3.3
○	F	29	2:45	8:59	15:17	21:23	○	S	29	3:05	9:18	15:52	21:52		W	29	4:06	10:26	17:05	23:02
			—0.4	4.7	—0.7	4.2				—0.2	4.8	—0.4	3.6				0.2	4.6	—0.1	3.2
	S	30	3:27	9:40	16:02	22:08	S	M	30	3:45	10:02	16:38	22:38		Th	30	4:42	11:05	17:45	23:42
			—0.4	4.8	—0.7	4.0				0.0	4.8	—0.3	3.4				0.4	4.4	0.1	3.1
								Tu	31	4:22	10:45	17:22	23:22							
										0.2	4.6	—0.2	3.2							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Valparaiso Mean Local Civil for the meridian 71° 38′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:20 0.6	11:43 4.1	18:22 0.2	. . . . . .
	S	2	0:22 3.0	5:59 0.9	12:22 3.9	19:00 0.3
A	S	3	1:04 2.9	6:36 1.1	13:07 3.5	19:39 0.4
E	M	4	1:46 2.9	7:26 1.2	13:48 3.3	20:22 0.6
☾	Tu	5	2:34 2.9	8:26 1.3	14:38 3.0	21:05 0.7
	W	6	3:29 3.0	9:33 1.3	15:34 2.9	21:53 0.8
	Th	7	4:28 3.1	10:36 1.2	16:37 2.8	22:52 0.8
	F	8	5:22 3.3	11:47 0.9	17:43 2.9	23:48 0.7
	S	9	6:15 3.6	12:47 0.6	18:42 3.0	. . . . . .
	S	10	0:46 0.5	7:07 4.0	13:40 0.3	19:37 3.2
N	M	11	1:36 0.3	7:56 4.4	14:30 0.0	20:27 3.3
	Tu	12	2:20 0.2	8:42 4.7	15:17 —0.3	21:15 3.5
●	W	13	3:05 0.0	9:27 4.9	16:02 —0.5	22:02 3.6
P	Th	14	3:51 0.0	10:15 5.0	16:47 —0.6	22:48 3.7
	F	15	4:38 0.0	11:00 4.9	17:30 —0.6	23:36 3.7
	S	16	5:27 0.0	11:47 4.7	18:17 —0.5	. . . . . .
E	S	17	0:25 3.7	6:20 0.1	12:40 4.4	19:04 —0.3
	M	18	1:16 3.7	7:17 0.3	13:32 3.9	19:58 —0.1
☽	Tu	19	2:10 3.6	8:20 0.4	14:32 3.8	20:46 0.2
	W	20	3:10 3.7	9:29 0.5	15:35 3.4	21:45 0.4
	Th	21	4:12 3.7	10:43 0.6	16:44 3.2	22:50 0.4
	F	22	5:17 3.8	11:59 0.5	17:56 3.0	23:54 0.4
	S	23	6:17 4.1	13:07 0.4	19:02 3.1	. . . . . .
S	S	24	0:50 0.3	7:10 4.3	14:02 0.3	20:00 3.2
	M	25	1:41 0.1	8:00 4.4	14:50 0.1	20:47 3.2
	Tu	26	2:27 0.1	8:44 4.5	15:32 0.0	21:28 3.3
○	W	27	3:10 0.1	9:27 4.6	16:08 0.0	22:06 3.3
	Th	28	3:50 0.2	10:05 4.5	16:42 0.0	22:41 3.3
	F	29	4:26 0.3	10:41 4.3	17:15 0.0	23:14 3.2
A	S	30	4:58 0.5	11:17 4.1	17:46 0.1	23:47 3.2
	S	31	5:32 0.7	11:52 3.9	18:18 0.2	. . . . . .

AUGUST.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
E	M	1	0:20 3.2	6:08 0.8	12:30 3.6	18:54 0.4
	Tu	2	0:56 3.2	6:52 0.9	13:10 3.3	19:26 0.6
	W	3	1:42 3.1	7:40 1.0	13:50 3.0	20:06 0.6
☾	Th	4	2:33 3.1	8:36 1.1	14:44 2.9	20:58 0.9
	F	5	3:32 3.2	9:52 1.1	15:56 2.8	22:14 0.9
	S	6	4:36 3.3	11:11 1.0	17:09 2.8	23:14 0.8
	S	7	5:42 3.6	12:20 0.7	18:17 2.9	. . . . . .
N	M	8	0:17 0.6	6:41 4.0	13:20 0.3	19:20 3.2
	Tu	9	1:14 0.3	7:38 4.4	14:10 —0.1	20:12 3.4
	W	10	2:04 0.0	8:23 4.7	14:57 —0.4	20:56 3.7
●	Th	11	2:53 —0.2	9:10 5.0	15:40 —0.6	21:42 3.9
P	F	12	3:40 —0.4	9:56 5.1	16:23 —0.7	22:27 4.1
	S	13	4:26 —0.4	10:42 5.0	17:03 —0.7	23:12 4.1
E	S	14	5:13 —0.4	11:30 4.8	17:47 —0.5	23:59 4.1
	M	15	6:06 —0.2	12:20 4.4	18:33 —0.3	. . . . . .
	Tu	16	0:47 4.0	6:57 0.0	13:10 4.0	19:20 0.0
☽	W	17	1:40 3.9	7:54 0.2	14:07 3.6	20:15 0.3
	Th	18	2:37 3.7	9:04 0.5	15:10 3.2	21:16 0.5
	F	19	3:42 3.7	10:22 0.7	16:24 3.0	22:24 0.7
S	S	20	4:50 3.7	11:43 0.7	17:42 2.9	23:32 0.6
	S	21	5:54 3.8	12:52 0.6	18:50 3.0	. . . . . .
	M	22	0:33 0.5	6:50 4.0	13:47 0.4	19:43 3.1
	Tu	23	1:27 0.3	7:40 4.2	14:33 0.2	20:30 3.3
	W	24	2:12 0.2	8:23 4.3	15:08 0.1	21:07 3.4
○	Th	25	2:54 0.1	9:05 4.3	15:38 0.0	21:40 3.5
A	F	26	3:32 0.1	9:40 4.3	16:10 0.0	22:12 3.5
	S	27	4:06 0.2	10:18 4.2	16:37 0.0	22:44 3.5
E	S	28	4:37 0.3	10:52 4.0	17:06 0.1	23:12 3.5
	M	29	5:10 0.5	11:24 3.8	17:35 0.2	23:42 3.5
	Tu	30	5:47 0.5	11:59 3.5	18:06 0.4	. . . . . .
	W	31	0:16 3.5	6:22 0.6	12:35 3.3	18:42 0.6

SEPTEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	0:57 3.3	7:08 0.7	13:18 3.1	19:23 0.8
☾	F	2	1:46 3.3	8:10 0.9	14:10 2.9	20:17 1.0
	S	3	2:49 3.2	9:23 0.9	15:22 2.7	21:23 1.1
N	S	4	4:00 3.3	10:43 0.9	16:46 2.7	22:44 0.9
	M	5	5:10 3.6	11:54 0.6	17:57 3.0	23:54 0.7
	Tu	6	6:14 4.0	12:52 0.4	19:00 3.3	. . . . . .
	W	7	0:54 0.3	7:10 4.3	13:44 —0.1	19:52 3.7
	Th	8	1:50 —0.1	8:02 4.7	14:30 —0.4	20:37 4.1
P ●	F	9	2:37 —0.4	8:50 4.8	15:14 —0.6	21:22 4.3
E	S	10	3:27 —0.7	9:38 4.9	15:55 —0.7	22:04 4.4
	S	11	4:12 —0.7	10:24 4.8	16:37 —0.7	22:50 4.5
	M	12	4:59 —0.6	11:11 4.6	17:20 —0.5	23:34 4.4
	Tu	13	5:44 —0.5	11:57 4.3	18:07 —0.2	. . . . . .
	W	14	0:18 4.2	6:38 —0.2	12:48 3.8	18:52 0.2
	Th	15	1:08 4.0	7:37 0.1	13:43 3.4	19:46 0.5
☽	F	16	2:07 3.8	8:43 0.5	14:50 3.0	20:47 0.8
S	S	17	3:11 3.6	10:00 0.7	16:07 2.8	22:00 0.9
	S	18	4:20 3.5	11:18 0.8	17:25 2.8	23:10 0.8
	M	19	5:25 3.6	12:25 0.6	18:32 2.9	. . . . . .
	Tu	20	0:14 0.6	6:24 3.7	13:16 0.5	19:20 3.1
	W	21	1:08 0.5	7:14 3.8	13:57 0.3	20:00 3.3
	Th	22	1:53 0.3	7:59 4.0	14:31 0.1	20:38 3.5
A	F	23	2:33 0.2	8:41 4.0	15:02 0.0	21:09 3.7
○ E	S	24	3:10 0.1	9:20 4.0	15:32 0.0	21:41 3.8
	S	25	3:44 0.1	9:52 4.0	16:01 0.1	22:10 3.8
	M	26	4:18 0.1	10:23 3.8	16:32 0.1	22:41 3.8
	Tu	27	4:50 0.1	10:59 3.7	17:01 0.3	23:12 3.7
	W	28	5:23 0.3	11:31 3.5	17:30 0.5	23:47 3.6
	Th	29	6:05 0.4	12:10 3.3	18:05 0.6	. . . . . .
	F	30	0:28 3.5	6:55 0.5	12:54 3.1	18:45 0.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Valparaiso Mean Local Civil for the meridian 71° 38′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	1:18	7:54	13:50	19:37	
			3.4	0.7	2.9	1.0	
☾	S	2	2:20	9:03	15:04	20:52	
			3.4	0.7	2.8	1.1	
	M	3	3:30	10:18	16:27	22:20	
			3.4	0.7	2.8	1.0	
	Tu	4	4:42	11:25	17:37	23:34	
			3.6	0.5	3.1	0.7	
	W	5	5:47	12:24	18:36	. . .	
			3.9	0.2	3.5	. . .	
	Th	6	0:40	6:48	13:15	19:25	
			0.2	3.2	—0.1	3.9	
	F	7	1:32	7:42	14:02	20:12	
			—0.2	4.4	—0.4	4.3	
P E	S	8	2:22	8:32	14:47	20:56	
			—0.5	4.6	—0.5	4.5	
●	S	9	3:10	9:20	15:30	21:42	
			—0.7	4.6	—0.6	4.7	
	M	10	3:52	10:06	16:11	22:23	
			—0.8	4.5	—0.5	4.7	
	Tu	11	4:44	10:51	16:51	23:07	
			—0.7	4.3	—0.2	4.7	
	W	12	5:31	11:36	17:33	23:52	
			—0.6	3.9	0.1	4.5	
	Th	13	6:22	12:27	18:21	. . .	
			—0.3	3.5	0.4	. . .	
S	F	14	0:42	7:20	13:23	19:14	
			4.2	0.1	3.1	0.7	
	S	15	1:37	8:22	14:29	20:12	
			3.9	0.4	2.9	1.0	
☽	S	16	2:37	9:29	15:43	21:28	
			3.6	0.6	2.7	1.0	
	M	17	3:42	10:40	16:58	22:42	
			3.4	0.7	2.8	1.0	
	Tu	18	4:48	11:40	18:01	23:50	
			3.4	0.6	3.0	0.9	
	W	19	5:50	12:30	18:46	. . .	
			3.4	0.5	3.2	. . .	
A	Th	20	0:44	6:45	13:12	19:26	
			0.7	3.5	0.3	3.4	
E	F	21	1:30	7:32	13:49	20:00	
			0.5	3.6	0.3	3.6	
	S	22	2:10	8:12	14:22	20:33	
			0.3	3.7	0.2	3.7	
	S	23	2:46	8:48	14:56	21:10	
			0.2	3.7	0.2	3.9	
○	M	24	3:19	9:22	15:27	21:40	
			0.1	3.7	0.2	4.0	
	Tu	25	3:53	9:58	15:55	22:12	
			0.0	3.7	0.3	4.0	
	W	26	4:30	10:32	16:25	22:47	
			0.0	3.5	0.4	4.0	
	Th	27	5:12	11:10	16:57	23:25	
			0.0	3.4	0.5	3.9	
	F	28	5:56	11:52	17:32	. . .	
			0.1	3.2	0.7	. . .	
N	S	29	0:10	6:46	12:41	18:18	
			3.8	0.2	3.1	0.8	
	S	30	1:02	7:42	13:40	19:16	
			3.7	0.3	2.9	1.0	
☾	M	31	2:00	8:44	14:51	20:32	
			3.6	0.4	2.9	1.1	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	3:06	9:51	16:06	22:00	
			3.6	0.4	3.0	0.9	
	W	2	4:16	10:56	17:14	23:15	
			3.6	0.3	3.3	0.6	
	Th	3	5:24	11:51	18:08	. . .	
			3.8	0.1	3.7	. . .	
E	F	4	0:20	6:27	12:42	18:57	
			0.3	3.9	0.0	4.0	
P	S	5	1:12	7:21	13:32	19:46	
			—0.1	4.1	—0.2	4.4	
	S	6	2:02	8:12	14:20	20:31	
			—0.5	4.2	—0.3	4.7	
●	M	7	2:52	9:00	15:05	21:16	
			—0.6	4.2	—0.4	4.9	
	Tu	8	3:41	9:47	15:44	21:59	
			—0.7	4.0	—0.3	4.9	
	W	9	4:30	10:33	16:26	22:43	
			—0.6	3.8	—0.1	4.8	
S	Th	10	5:17	11:21	17:10	23:31	
			—0.5	3.6	0.2	4.6	
	F	11	6:07	12:10	17:52	. . .	
			—0.2	3.3	0.5	. . .	
	S	12	0:18	7:01	13:03	18:42	
			4.3	0.1	3.0	0.8	
	S	13	1:10	7:55	14:08	19:38	
			4.0	0.3	2.8	1.0	
☽	M	14	2:02	8:52	15:10	20:46	
			3.6	0.5	2.7	1.2	
	Tu	15	3:00	9:50	16:16	22:00	
			3.4	0.6	2.8	1.2	
	W	16	4:04	10:44	17:15	23:11	
			3.2	0.6	2.9	1.1	
A	Th	17	5:08	11:37	18:02	. . .	
			3.2	0.6	3.1	. . .	
E	F	18	0:08	6:03	12:20	18:42	
			1.0	3.2	0.6	3.4	
	S	19	0:58	6:52	13:00	19:20	
			0.7	3.2	0.5	3.6	
	S	20	1:37	7:33	13:42	19:55	
			0.5	3.3	0.4	3.8	
	M	21	2:17	8:16	14:20	20:32	
			0.3	3.4	0.3	4.0	
○	Tu	22	2:55	8:54	14:52	21:08	
			0.1	3.4	0.3	4.2	
	W	23	3:33	9:33	15:25	21:47	
			0.0	3.4	0.3	4.3	
	Th	24	4:16	10:12	15:58	22:27	
			—0.1	3.4	0.4	4.3	
N	F	25	4:57	10:54	16:36	23:10	
			—0.2	3.3	0.5	4.3	
	S	26	5:45	11:40	17:15	23:55	
			—0.1	3.2	0.6	4.2	
	S	27	6:33	12:31	18:05	. . .	
			—0.1	3.1	0.8	. . .	
	M	28	0:45	7:25	13:27	19:05	
			4.0	0.0	3.1	0.9	
	Tu	29	1:42	8:22	14:31	20:19	
			3.9	0.1	3.1	0.9	
☾	W	30	2:44	9:20	15:37	21:38	
			3.7	0.2	3.2	0.8	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	3:52	10:20	16:40	22:52	
			3.6	0.3	3.5	0.6	
P	F	2	5:00	11:15	17:37	23:55	
			3.6	0.2	3.8	0.3	
	S	3	6:02	12:14	18:30	. . .	
			3.6	0.1	4.1	. . .	
	S	4	0:56	7:00	13:06	19:22	
			0.0	3.7	—0.1	4.5	
	M	5	1:51	7:55	13:55	20:10	
			—0.2	3.7	—0.2	4.7	
●	Tu	6	2:42	8:47	14:42	20:56	
			—0.4	3.7	—0.2	4.9	
	W	7	3:31	9:34	15:24	21:42	
			—0.5	3.6	—0.1	4.9	
S	Th	8	4:17	10:20	16:05	22:27	
			—0.4	3.5	0.0	4.8	
	F	9	5:04	11:05	16:47	23:10	
			—0.3	3.3	0.3	4.6	
	S	10	5:52	11:50	17:29	23:54	
			—0.2	3.2	0.5	4.3	
	S	11	6:35	12:39	18:15	. . .	
			0.0	3.0	0.8	. . .	
	M	12	0:39	7:21	13:30	19:05	
			4.0	0.3	2.9	1.0	
	Tu	13	1:26	8:10	14:24	20:00	
			3.7	0.4	2.8	1.2	
☽ A	W	14	2:18	9:00	15:20	21:05	
			3.4	0.6	2.8	1.3	
E	Th	15	3:14	9:47	16:14	22:15	
			3.1	0.7	2.9	1.3	
	F	16	4:11	10:34	17:06	23:22	
			3.0	0.8	3.1	1.4	
	S	17	5:10	11:23	17:52	. . .	
			2.9	0.7	3.3	. . .	
	S	18	0:17	6:02	12:11	18:37	
			1.0	2.9	0.6	3.5	
	M	19	1:05	6:47	13:01	19:22	
			0.7	3.0	0.5	3.8	
	Tu	20	1:52	7:44	13:46	20:03	
			0.5	3.1	0.4	4.1	
	W	21	2:34	8:28	14:24	20:46	
			0.2	3.2	0.3	4.4	
○ N	Th	22	3:17	9:13	15:02	21:27	
			0.0	3.3	0.3	4.6	
	F	23	4:00	9:57	15:42	22:10	
			—0.2	3.4	0.3	4.6	
	S	24	4:44	10:40	16:25	22:54	
			—0.3	3.4	0.3	4.6	
	S	25	5:28	11:27	17:09	23:40	
			—0.4	3.4	0.4	4.5	
	M	26	6:15	12:16	18:01	. . .	
			—0.3	3.4	0.5	. . .	
P	Tu	27	0:30	7:04	13:10	19:00	
			4.3	—0.2	3.4	0.6	
	W	28	1:22	7:54	14:05	20:04	
			4.1	0.0	3.4	0.6	
E ☾	Th	29	2:21	8:48	15:05	21:16	
			3.8	0.1	3.5	0.6	
	F	30	3:27	9:44	16:07	22:25	
			3.5	0.3	3.6	0.6	
	S	31	4:32	10:43	17:08	23:37	
			3.4	0.3	3.8	0.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Valparaiso Mean Local Civil for the meridian 71° 38′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon: for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	1:10 14.5	7:37 1.0	13:45 14.5	19:57 1.6
N	S	2	2:03 15.3	8:29 0.1	14:37 15.4	20:47 0.8
○	S	3	2:52 16.0	9:17 —0.7	15:25 16.2	21:37 0.1
P	M	4	3:40 16.5	10:04 —1.1	16:12 16.7	22:25 —0.2
	Tu	5	4:30 16.7	10:51 —1.2	17:00 16.9	23:14 —0.3
	W	6	5:17 16.6	11:39 —1.0	17:46 16.7	. . . . . .
	Th	7	0:03 0.0	6:05 16.2	12:27 —0.2	18:37 16.3
F	F	8	0:55 0.5	6:55 15.5	13:17 —0.5	19:26 15.6
☾	S	9	1:50 1.1	7:48 14.5	14:10 1.4	20:19 14.9
	S	10	2:45 1.8	8:47 13.6	15:06 2.3	21:18 14.1
	M	11	3:45 2.4	9:52 12.9	16:08 3.0	22:21 13.5
	Tu	12	4:50 3.2	11:02 12.5	17:13 3.3	23:30 13.1
	W	13	5:54 3.2	12:14 12.5	18:20 3.3	. . . . . .
	Th	14	0:35 13.2	6:54 2.5	13:18 12.9	19:18 3.0
S	F	15	1:34 13.8	7:50 2.0	14:13 13.5	20:12 2.6
	S	16	2:25 14.0	8:38 1.5	15:00 14.0	21:02 2.2
●	S	17	3:10 14.3	9:22 1.0	15:40 14.4	21:45 1.9
	M	18	3:50 14.5	10:03 0.8	16:17 14.6	22:25 1.7
A	Tu	19	4:28 14.5	10:42 0.8	16:53 14.7	23:02 1.7
	W	20	5:02 14.5	11:18 1.0	17:27 14.7	23:40 1.9
	Th	21	5:35 14.3	11:56 1.3	18:00 14.5	. . . . . .
E	F	22	0:16 2.1	6:10 14.0	12:31 1.8	18:35 14.3
	S	23	0:56 2.4	6:44 13.7	13:10 2.3	19:10 14.1
	S	24	1:36 2.7	7:22 13.4	13:47 2.9	19:50 13.8
☽	M	25	2:17 3.0	8:07 13.1	14:34 3.2	20:34 13.5
	Tu	26	3:07 3.2	9:00 12.8	15:24 3.7	21:27 13.2
	W	27	4:05 3.2	10:00 12.6	16:28 3.7	22:30 13.1
	Th	28	5:08 3.0	11:10 12.7	17:32 3.5	23:35 13.4
N	F	29	6:10 2.3	12:17 13.2	18:34 3.2	. . . . . .
	S	30	0:42 14.0	7:12 1.5	13:20 14.2	19:37 1.9
	S	31	1:41 15.0	8:07 0.4	14:17 15.2	20:30 0.9

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○ P	M	1	2:36 15.8	9:00 —0.5	15:08 16.2	21:22 0.0
	Tu	2	3:27 16.5	9:48 —1.1	15:57 16.9	22:10 —0.6
	W	3	4:15 17.0	10:35 —1.4	16:43 17.2	22:58 —0.8
E	Th	4	5:03 17.0	11:21 —1.3	17:28 17.2	23:46 —0.7
	F	5	5:50 16.6	12:08 —1.2	18:16 17.8	. . . . . .
	S	6	0:35 —0.2	6:37 15.9	12:56 0.0	19:03 16.1
	S	7	1:25 0.5	7:27 15.0	13:47 1.1	19:55 15.1
☾	M	8	2:18 1.5	8:20 13.9	14:40 2.3	20:48 14.1
	Tu	9	3:16 2.4	9:20 12.9	15:40 3.2	21:50 13.1
	W	10	4:18 3.1	10:30 12.1	16:46 4.1	23:00 12.5
S	Th	11	5:25 3.4	11:45 11.9	17:53 4.0	. . . . . .
	F	12	0:10 12.4	6:27 3.3	12:56 12.2	19:00 3.7
	S	13	1:12 12.7	7:26 2.8	13:52 12.8	19:52 3.3
	S	14	2:06 13.2	8:17 2.1	14:39 13.5	20:40 2.6
A	M	15	2:53 13.8	9:00 1.6	15:20 14.1	21:24 2.1
●	Tu	16	3:30 14.2	9:40 1.1	15:52 14.5	22:00 1.7
	W	17	4:02 14.5	10:16 0.9	16:26 14.9	22:36 1.4
	Th	18	4:37 14.8	10:52 0.9	16:52 15.1	23:12 1.3
E	F	19	5:10 14.9	11:26 1.0	17:38 15.1	23:45 1.2
	S	20	5:42 14.7	12:00 1.3	18:02 15.0	. . . . . .
	S	21	0:24 1.5	6:14 14.5	12:37 1.7	18:37 14.9
	M	22	1:00 1.8	6:52 14.2	13:16 2.3	19:15 14.5
	Tu	23	1:42 2.2	7:34 13.8	13:56 2.9	20:00 14.0
☽	W	24	2:30 2.6	8:24 13.3	14:48 3.4	20:52 13.5
	Th	25	3:30 3.0	9:25 12.9	15:52 3.7	21:53 13.2
N	F	26	4:36 3.2	10:35 12.8	17:01 3.6	23:07 13.2
	S	27	5:44 3.2	11:50 13.1	18:12 3.0	. . . . . .
	S	28	0:17 13.6	6:47 2.0	12:58 14.0	19:14 2.0
	M	29	1:23 14.5	7:46 0.8	13:56 15.1	20:12 0.8

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MARCH.			
P ○	Tu	1	2:21 15.5	8:39 —0.2	14:50 16.2	21:04 —0.1
	W	2	3:12 16.5	9:28 —0.9	15:37 17.0	21:54 —1.0
E	Th	3	4:00 17.0	10:15 —1.4	16:24 17.5	22:40 —1.3
	F	4	4:47 17.2	11:02 —1.4	17:08 17.5	23:27 —1.1
	S	5	5:32 16.9	11:47 —0.9	17:54 17.0	. . . . . .
	S	6	0:13 —0.6	6:17 16.1	12:34 0.0	18:40 16.1
	M	7	1:02 0.2	7:04 15.0	13:22 1.2	19:27 15.0
☾	Tu	8	1:52 1.4	7:54 13.9	14:12 2.5	20:20 13.9
S	W	9	2:45 2.5	8:50 12.8	15:12 3.5	21:20 12.7
	Th	10	3:47 3.4	9:57 11.9	16:17 4.3	22:27 12.1
	F	11	4:54 3.9	11:16 11.6	17:26 4.5	23:41 11.7
	S	12	5:58 3.9	12:28 11.8	18:32 4.2	. . . . . .
	S	13	0:48 12.0	6:58 3.4	13:24 12.4	19:29 3.6
A	M	14	1:42 12.6	7:47 3.2	14:10 13.1	20:15 3.0
	Tu	15	2:26 13.3	8:30 2.0	14:48 13.9	20:52 2.1
	W	16	3:00 14.0	9:10 1.4	15:22 14.7	21:30 1.5
● E	Th	17	3:37 14.5	9:47 1.0	15:52 15.2	22:05 1.0
	F	18	4:08 15.0	10:22 0.8	16:25 15.5	22:40 0.6
	S	19	4:40 15.3	10:55 0.7	16:57 15.6	23:16 0.3
	S	20	5:15 15.4	11:30 1.0	17:30 15.6	23:52 0.7
	M	21	5:48 15.2	12:06 1.3	18:06 15.4	. . . . . .
	Tu	22	0:32 1.0	6:27 14.9	12:47 1.9	18:45 15.0
	W	23	1:12 1.6	7:10 14.3	13:30 2.5	19:32 14.4
N ☽	Th	24	2:02 2.2	8:00 14.2	14:20 3.1	20:25 14.3
	F	25	2:58 2.7	9:00 13.1	15:27 3.6	21:32 13.1
	S	26	4:06 3.0	10:10 12.9	16:41 3.5	22:45 13.0
	S	27	5:17 2.8	11:28 13.1	17:50 3.0	. . . . . .
	M	28	0:00 13.4	6:25 2.1	12:37 14.0	18:55 2.0
P	Tu	29	2:07 14.2	7:26 1.1	13:37 15.0	19:53 0.8
E	W	30	2:06 15.4	8:18 0.1	14:30 16.1	20:46 —0.2
	Th	31	2:56 16.2	9:08 —0.6	15:17 17.0	21:34 —1.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Panama Mean Local Civil for the meridian 79° 32′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	3:42	9:56	16:03	22:20		S	1	4:10	10:20	16:28	22:44		W	1	5:20	11:32	17:33	23:52
			16.9	—1.1	17.4	—1.4				16.5	—0.3	16.6	—0.9				15.3	1.2	15.0	0.6
	S	2	4:28	10:40	16:48	23:07		M	2	4:54	11:05	17:10	23:30		Th	2	6:02	12:16	18:15	. . .
			17.0	—1.0	17.3	—1.2				16.2	0.0	16.2	—0.4				14.8	1.9	14.2	. . .
	S	3	5:12	11:24	17:32	23:50	S	Tu	3	5:37	11:50	17:52	. . .		F	3	0:36	6:44	13:00	18:56
			16.7	—0.5	16.8	—0.6				15.7	0.8	15.5	. . .				1.4	14.1	2.7	13.4
	M	4	5:57	12:10	18:16	. . .		W	4	0:14	6:22	12:37	18:37		S	4	1:17	7:28	13:47	19:40
			16.0	0.4	15.9	. . .				0.4	14.9	1.7	14.4				2.3	13.4	8.4	12.6
	Tu	5	0:36	6:42	12:58	19:02		Th	5	1:00	7:07	13:24	19:22	A	S	5	2:07	8:14	14:37	20:28
			0.3	15.0	1.5	14.8				1.5	14.0	2.7	13.3				3.1	12.7	4.0	11.9
S	W	6	1:25	7:30	13:48	19:52		F	6	1:48	7:57	14:17	20:15	☾	M	6	2:55	9:04	15:28	21:23
			1.4	13.9	2.6	13.6				2.5	13.0	3.7	12.4				3.8	12.3	4.3	11.5
☾	Th	7	2:16	8:23	14:45	20:47	☾	S	7	2:40	8:52	15:14	21:12	E	Tu	7	3:48	9:56	16:25	22:21
			2.6	12.9	3.7	12.5				3.5	12.3	4.4	11.6				4.2	12.1	4.3	11.4
	F	8	3:14	9:26	15:48	21:52	A	S	8	3:37	9:52	16:14	22:17		W	8	4:42	10:52	17:18	23:21
			3.6	12.0	4.5	11.6				4.0	11.8	4.7	11.2				4.2	12.2	4.0	11.7
	S	9	4:16	10:35	16:54	23:05		M	9	4:38	10:53	17:16	23:21		Th	9	5:38	11:44	18:12	. . .
			4.1	11.5	4.8	11.3				4.3	11.8	4.6	11.3				4.0	12.5	3.3	. . .
A	S	10	5:22	11:46	17:58	. . .		Tu	10	5:35	11:52	18:09	. . .		F	10	0:17	6:30	12:35	19:00
			4.2	11.6	4.8	. . .				4.2	12.1	4.0	. . .				12.3	3.4	13.2	2.5
	M	11	0:12	6:20	12:44	18:52	E	W	11	0:20	6:30	12:40	18:57		S	11	1:08	7:18	13:23	19:50
			11.5	3.9	12.1	3.9				11.8	3.7	12.7	3.2				13.8	2.7	14.0	1.4
	Tu	12	1:07	7:12	13:28	19:38		Th	12	1:07	7:15	13:24	19:41		S	12	1:56	8:05	14:10	20:35
			12.2	3.3	12.9	3.1				12.6	3.0	13.4	2.2				14.0	2.0	14.9	0.5
E	W	13	1:50	7:57	14:10	20:20		F	13	1:50	7:59	14:04	20:22	●	M	13	2:42	8:52	14:52	21:20
			13.0	2.5	13.7	2.9				13.5	2.3	14.3	1.3				15.0	1.2	15.6	—0.2
	Th	14	2:29	8:35	14:44	21:00		S	14	2:32	8:38	14:42	21:08	N	Tu	14	3:24	9:37	15:37	22:02
			13.8	2.0	14.5	1.3				14.4	1.6	15.0	0.5				15.7	0.6	16.1	—0.7
●	F	15	3:04	9:14	15:17	21:35	●	S	15	3:08	9:21	15:20	21:44		W	15	4:09	10:22	16:23	22:47
			14.6	1.2	15.2	0.6				15.2	1.0	15.6	—0.1				16.1	0.3	16.4	—0.8
	S	16	3:40	9:50	15:50	22:12		M	16	3:47	10:00	16:00	22:24		Th	16	4:52	11:07	17:08	23:33
			15.2	0.8	15.6	0.1				15.7	0.7	16.0	—0.5				16.4	0.3	16.3	—0.7
	S	17	4:12	10:27	16:27	22:48	N	Tu	17	4:38	10:40	16:40	23:06	P	F	17	5:38	11:55	17:54	. . .
			15.6	0.6	16.0	0.0				16.0	0.5	16.2	—0.4				16.2	0.5	16.0	. . .
	M	18	4:48	11:04	17:02	23:27		W	18	5:07	11:23	17:22	23:48		S	18	0:18	6:25	12:44	18:42
			15.7	0.7	16.0	0.0				16.0	0.7	16.0	—0.1				—0.1	16.0	0.9	15.3
	Tu	19	5:27	11:44	17:41	. . .		Th	19	5:52	12:10	18:07	. . .		S	19	1:08	7:15	13:37	19:36
			15.7	1.0	15.8	. . .				15.8	1.1	15.6	. . .				0.6	15.4	1.5	14.5
N	W	20	0:07	6:06	12:25	18:22		F	20	0:34	6:38	13:00	18:56	☽ E	M	20	2:00	8:10	14:35	20:34
			0.4	15.4	1.5	15.3				0.5	15.3	1.6	14.9				1.4	14.8	2.0	13.7
	Th	21	0:52	6:51	13:12	19:12		S	21	1:23	7:30	13:53	19:50		Tu	21	3:00	9:11	15:37	21:38
			1.0	14.9	2.1	14.5				1.2	14.7	2.3	14.1				2.1	14.2	2.4	13.1
☽	F	22	1:40	7:42	14:05	20:05	☽ P	S	22	2:20	8:27	14:53	20:52		W	22	4:02	10:13	16:42	22:50
			1.7	14.2	2.8	13.8				2.0	14.1	2.7	13.4				2.7	13.8	2.5	12.9
	S	23	2:37	8:42	15:10	21:09		M	23	3:22	9:32	16:01	22:04		Th	23	5:06	11:20	17:47	. . .
			2.4	13.6	3.3	13.2				2.5	13.7	2.9	13.0				2.8	13.6	2.4	. . .
	S	24	3:42	9:50	16:20	22:25	E	Tu	24	4:28	10:40	17:10	23:17		F	24	0:02	6:11	12:25	18:49
			2.9	13.2	3.3	12.9				2.7	13.6	2.7	13.0				13.0	2.7	13.9	1.9
	M	25	4:52	11:04	17:30	23:41		W	25	5:34	11:47	18:13	. . .		S	25	1:07	7:12	13:25	19:45
			2.9	13.3	2.8	13.2				2.6	13.9	2.0	. . .				13.4	2.3	14.3	1.3
P	Tu	26	6:00	12:13	18:37	. . .		Th	26	0:26	6:37	12:50	19:12		S	26	2:03	8:07	14:18	20:36
			2.4	14.0	2.0	. . .				13.5	2.1	14.4	1.3				14.0	1.9	14.7	0.7
E	W	27	0:48	7:02	13:13	19:34		F	27	1:26	7:34	13:46	20:06	S ○	M	27	2:53	8:59	15:06	21:22
			14.0	1.6	14.8	0.9				14.2	1.5	15.1	0.5				14.5	1.4	15.1	0.3
	Th	28	1:46	7:57	14:07	20:26		S	28	2:18	8:27	14:37	20:55		Tu	28	3:40	9:45	15:52	22:07
			14.9	0.7	15.7	—0.1				15.0	0.9	15.7	—0.1				15.0	1.2	15.2	0.2
○	F	29	2:37	8:47	14:58	21:14	○	S	29	3:09	9:15	15:23	21:42		W	29	4:22	10:30	16:32	22:49
			15.7	0.0	16.4	—0.7				15.5	0.5	15.9	—0.4				15.1	1.1	15.0	0.2
	S	30	3:25	9:35	15:42	22:00	S	M	30	3:53	10:00	16:07	22:25		Th	30	5:02	11:12	17:12	23:31
			16.3	—0.4	16.8	—1.1				15.7	0.5	16.0	—0.4				15.1	1.4	14.8	0.7
								Tu	31	4:37	10:47	16:50	23:09							
										15.6	0.7	15.6	—0.1							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Panama Mean Local Civil for the meridian 79° 32′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:42 14.8	11:54 1.8	17:52 14.3	. . .	
	S	2	0:10 1.2	6:20 14.4	12:34 2.3	18:30 13.7	
A	S	3	0:51 1.9	6:57 13.9	13:15 2.8	19:08 13.1	
E	M	4	1:32 2.6	7:35 13.4	13:58 3.3	19:47 12.6	
☾	Tu	5	2:12 3.3	8:16 13.0	14:43 3.7	20:32 12.2	
	W	6	2:58 3.8	9:01 12.7	15:32 3.9	21:24 11.9	
	Th	7	3:50 4.1	9:52 12.5	16:28 3.8	22:21 11.9	
	F	8	4:46 4.1	10:50 12.7	17:25 3.4	23:26 12.2	
	S	9	5:45 3.8	11:48 13.0	18:24 2.7	. . . . . .	
	S	10	0:27 12.9	6:42 3.1	12:45 13.7	19:17 1.8	
N	M	11	1:23 13.7	7:37 2.3	13:40 14.6	20:07 0.8	
	Tu	12	2:15 14.7	8:27 2.6	14:31 15.5	20:57 —0.1	
●	W	13	3:06 15.6	9:16 0.6	15:18 16.1	21:43 —0.7	
P	Th	14	3:52 16.4	10:05 0.0	16:07 16.6	22:30 —1.1	
	F	15	4:37 16.8	10:52 —0.3	16:54 16.7	23:16 —1.1	
	S	16	5:22 16.9	11:40 —0.2	17:40 16.5	. . . . . .	
E	S	17	0:02 —0.7	6:10 16.6	12:27 0.1	18:28 15.9	
	M	18	0:52 0.0	6:52 16.1	13:20 0.6	19:18 15.1	
☽	Tu	19	1:40 0.9	7:48 15.4	14:12 1.3	20:12 14.2	
	W	20	2:35 1.9	8:44 14.5	15:10 2.0	21:14 13.3	
	Th	21	3:34 2.6	9:40 13.8	16:14 2.6	22:22 12.6	
	F	22	4:40 3.2	10:53 13.2	17:20 2.8	23:36 12.5	
	S	23	5:46 3.4	12:00 13.1	18:26 2.6	. . . . . .	
S	S	24	0:47 12.7	6:52 3.1	13:06 13.4	19:24 2.1	
	M	25	1:47 13.2	7:50 2.7	14:03 13.9	20:17 1.6	
	Tu	26	2:40 14.0	8:42 2.2	14:52 14.4	21:04 1.0	
○	W	27	3:24 14.5	9:28 1.8	15:37 14.5	21:48 0.7	
	Th	28	4:04 14.9	10:10 1.5	16:15 14.8	22:28 0.6	
	F	29	4:42 15.0	10:50 1.4	16:52 14.7	23:06 0.7	
A	S	30	5:16 15.0	11:28 1.5	17:27 14.5	23:43 1.0	
	S	31	5:50 14.8	12:04 1.9	18:00 14.2	. . . . . .	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	0:20 1.5	6:24 14.5	12:42 2.2	18:35 13.8	
	Tu	2	0:57 2.2	6:57 14.1	13:18 2.6	19:08 13.4	
	W	3	1:34 2.7	7:34 13.7	14:02 3.0	19:50 13.0	
☾	Th	4	2:13 3.4	8:15 13.4	14:47 3.3	20:37 12.6	
	F	5	3:02 3.8	9:02 13.0	15:41 3.5	21:32 12.4	
	S	6	4:00 4.1	10:01 12.8	16:40 3.4	22:39 12.3	
	S	7	5:04 4.0	11:07 12.9	17:44 3.1	23:38 12.7	
N	M	8	6:08 3.4	12:13 13.4	18:46 2.0	. . . . . .	
	Tu	9	0:55 13.5	7:08 2.5	13:15 14.3	19:42 1.0	
	W	10	1:52 14.6	8:06 1.4	14:12 15.3	20:36 0.0	
●	Th	11	2:45 15.7	8:59 0.3	15:08 16.1	21:25 —0.7	
P	F	12	3:33 16.6	9:47 —0.5	15:53 16.8	22:12 —1.3	
	S	13	4:20 17.2	10:34 —0.9	16:38 17.1	22:56 —1.4	
E	S	14	5:05 17.4	11:22 —1.0	17:25 17.0	23:42 —1.1	
	M	15	5:50 17.2	12:08 —0.7	18:12 16.4	. . . . . .	
	Tu	16	0:30 —0.4	6:37 16.6	12:57 0.0	19:00 15.5	
☽	W	17	1:19 0.6	7:24 15.7	13:50 0.9	19:50 14.5	
	Th	18	2:10 1.7	8:17 14.7	14:43 1.9	20:47 13.4	
	F	19	3:08 2.7	9:17 13.6	15:47 2.7	21:54 12.5	
S	S	20	4:14 3.6	10:25 12.8	16:52 3.3	23:10 12.0	
	S	21	5:25 4.0	11:37 12.5	18:00 3.3	. . . . . .	
	M	22	0:25 12.2	6:32 3.7	12:48 12.6	19:02 2.9	
	Tu	23	1:30 12.8	7:33 3.3	13:47 13.2	19:57 2.3	
	W	24	2:21 13.5	8:23 2.7	14:35 13.8	20:43 1.7	
○	Th	25	3:03 14.2	9:09 2.0	15:17 14.2	21:25 1.2	
A	F	26	3:40 14.7	9:48 1.5	15:52 14.5	22:05 0.8	
	S	27	4:17 15.0	10:23 1.2	16:27 14.8	22:38 0.8	
E	S	28	4:46 15.1	10:59 1.1	17:01 14.9	23:15 0.9	
	M	29	5:17 15.1	11:33 1.2	17:30 14.8	23:47 1.3	
	Tu	30	5:48 15.0	12:07 1.5	18:02 14.5	. . . . . .	
	W	31	0:22 1.7	6:21 14.8	12:45 1.8	18:37 14.2	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	0:58 2.4	7:56 14.4	13:24 2.2	19:15 13.8	
☾	F	2	1:37 2.9	7:37 13.9	14:07 2.7	20:00 13.3	
	S	3	2:23 3.5	8:25 13.4	15:00 3.1	20:56 12.9	
N	S	4	3:24 3.9	9:22 13.0	16:05 3.2	22:02 12.6	
	M	5	4:32 4.0	10:33 12.8	17:12 3.0	23:17 12.8	
	Tu	6	5:42 3.5	11:46 13.1	18:19 2.4	. . . . . .	
	W	7	0:28 13.5	6:47 2.5	12:54 14.0	19:19 1.3	
	Th	8	1:30 14.5	7:45 1.3	13:54 15.1	20:13 0.3	
P ●	F	9	2:34 15.8	8:40 0.1	14:48 16.1	21:04 —0.6	
E	S	10	3:14 16.8	9:30 —0.7	15:37 16.9	21:51 —1.2	
	S	11	4:00 17.5	10:16 —1.3	16:24 17.3	22:38 —1.5	
	M	12	4:44 17.7	11:02 —1.5	17:07 17.2	23:22 —1.2	
	Tu	13	5:29 17.5	11:47 —1.1	17:52 16.6	. . . . . .	
	W	14	0:08 —0.1	6:14 16.8	12:34 —0.3	18:39 15.8	
	Th	15	0:56 0.6	7:02 15.7	13:25 0.7	19:27 14.5	
☽	F	16	1:47 1.8	7:52 14.5	14:18 1.9	20:23 13.5	
S	S	17	2:44 3.0	8:50 13.3	15:17 3.0	21:27 12.5	
	S	18	3:48 3.9	9:57 12.3	16:23 3.6	22:42 11.9	
	M	19	4:57 4.3	11:12 11.9	17:31 3.8	23:57 12.0	
	Tu	20	6:08 4.2	12:25 12.0	18:35 3.5	. . . . . .	
	W	21	1:02 12.5	7:10 3.7	13:25 12.6	19:30 2.9	
	Th	22	1:52 13.1	7:58 3.0	14:12 13.2	20:17 2.3	
A	F	23	2:35 13.9	8:40 2.2	14:55 13.9	20:55 1.6	
○ E	S	24	3:12 14.5	9:18 1.6	15:27 14.5	21:34 1.2	
	S	25	3:42 15.0	9:54 1.0	16:00 14.9	22:10 1.0	
	M	26	4:16 15.3	10:27 0.8	16:30 15.0	22:42 0.9	
	Tu	27	4:44 15.5	11:00 0.7	17:02 15.1	23:17 1.1	
	W	28	5:17 15.4	11:37 0.8	17:35 15.0	23:52 1.5	
	Th	29	5:50 15.2	12:14 1.1	18:10 14.8	. . . . . .	
	F	30	0:27 2.0	6:27 14.9	12:55 1.6	18:50 14.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Panama Mean Local Civil for the meridian 79° 32′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	OCTOBER.					
N	S	1	1:08	7:08	13:40	19:36
			2.6	14.3	2.2	13.8
☾	S	2	1:56	7:57	14:30	20:30
			3.2	13.7	2.7	13.3
	M	3	2:07	8:57	15:34	21:37
			3.6	13.1	3.1	12.9
	Tu	4	4:07	10:08	16:42	22:52
			3.7	12.9	3.1	13.0
	W	5	5:18	11:25	17:52	. . .
			3.3	13.1	2.6	. . .
	Th	6	0:02	6:25	12:34	18:55
			13.6	2.4	13.9	1.7
	F	7	1:06	7:25	13:36	19:50
			14.5	1.2	15.0	0.6
P E	S	8	2:01	8:19	14:18	20:41
			15.7	0.0	16.0	—0.3
●	S	9	2:50	9:09	15:17	21:30
			16.6	—0.9	16.7	—0.9
	M	10	3:37	9:54	16:04	22:15
			17.2	—1.5	17.1	—1.1
	Tu	11	4:22	10:41	16:48	23:02
			17.5	—1.5	17.0	—0.8
	W	12	5:08	11:27	17:34	23:47
			17.2	—1.1	16.5	—0.1
	Th	13	5:52	12:14	18:20	. . .
			16.5	—0.4	15.7	. . .
S	F	14	0:35	6:38	13:02	19:08
			0.9	15.4	0.7	14.5
	S	15	1:26	7:27	13:53	20:00
			2.0	14.2	1.9	13.5
☽	S	16	2:20	8:23	14:49	21:00
			3.1	13.0	3.0	12.5
	M	17	3:23	9:27	15:52	22:10
			4.0	12.0	3.7	11.9
	Tu	18	4:30	10:40	16:57	23:22
			4.4	11.5	4.0	11.8
	W	19	5:37	11:52	18:00	. . .
			4.4	11.6	4.1	. . .
A	Th	20	0:23	6:35	12:52	18:54
			12.2	4.0	12.0	4.6
E	F	21	1:13	7:24	13:38	19:41
			12.8	3.2	12.7	2.8
	S	22	1:57	8:08	14:18	20:22
			13.5	2.5	13.5	2.2
	S	23	2:31	8:45	14:54	21:01
			14.2	2.4	14.2	1.6
○	M	24	3:06	9:20	15:27	21:36
			14.7	1.0	14.7	1.2
	Tu	25	3:37	9:57	16:00	22:12
			15.2	0.5	15.1	1.0
	W	26	4:12	10:34	16:35	22:50
			15.5	0.2	15.4	1.0
	Th	27	4:46	11:10	17:10	23:26
			15.6	0.3	15.4	1.3
	F	28	5:23	11:50	17:49	. . .
			15.5	0.5	15.2	. . .
N	S	29	0:05	6:02	12:30	18:32
			1.7	15.2	1.0	14.9
	S	30	0:50	6:47	13:17	19:17
			2.1	14.6	1.6	14.4
☾	M	31	1:40	7:37	14:08	20:12
			2.7	14.0	2.3	13.8

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	NOVEMBER.					
	Tu	1	2:40	8:36	15:10	21:16
			3.1	13.4	2.8	13.4
	W	2	3:48	9:46	16:17	22:26
			3.3	13.0	2.9	13.4
	Th	3	4:56	11:00	17:26	23:37
			3.0	13.0	2.7	13.8
E	F	4	6:04	12:13	18:28	. . .
			2.3	13.6	2.0	. . .
P	S	5	0:40	7:02	13:14	19:27
			14.5	1.3	14.5	1.1
	S	6	1:37	7:58	14:10	20:18
			15.4	0.2	15.4	0.4
●	M	7	2:29	8:48	15:00	21:09
			16.2	—0.6	16.1	—0.2
	Tu	8	3:16	9:35	15:46	21:56
			16.7	—1.1	16.5	—0.4
	W	9	4:04	10:22	16:32	22:42
			16.9	—1.2	16.5	—0.2
S	Th	10	4:47	11:08	17:17	23:30
			16.6	—0.9	16.1	0.3
	F	11	5:33	11:55	18:02	. . .
			16.0	—0.1	15.5	. . .
	S	12	0:16	6:18	12:40	18:49
			1.1	15.1	0.8	14.6
	S	13	1:05	7:07	13:29	19:38
			2.1	14.0	1.9	13.7
☽	M	14	1:57	7:57	14:21	20:32
			3.0	13.0	2.8	12.9
	Tu	15	2:53	8:54	15:17	21:32
			3.8	12.0	3.6	12.2
	W	16	3:54	9:58	16:17	22:34
			4.2	11.5	4.1	12.0
A	Th	17	4:55	11:02	17:15	23:34
			4.4	11.3	4.1	12.1
E	F	18	5:52	12:02	18:10	. . .
			4.1	11.6	4.1	. . .
	S	19	0:24	6:42	12:54	18:59
			12.5	3.5	12.2	3.4
	S	20	1:10	7:27	13:38	19:43
			13.0	2.7	13.0	2.7
	M	21	1:50	8:09	14:17	20:25
			13.7	1.8	13.8	2.1
○	Tu	22	2:30	8:48	14:55	21:04
			14.5	1.0	14.5	1.6
	W	23	3:05	9:28	15:33	21:43
			15.1	0.4	15.1	1.1
	Th	24	3:43	10:08	16:12	22:25
			15.6	0.0	15.5	1.0
N	F	25	4:22	10:48	16:52	23:06
			15.8	—0.1	15.7	1.0
	S	26	5:04	11:30	17:32	23:48
			15.8	0.0	15.7	1.2
	S	27	5:45	12:13	18:16	. . .
			15.5	0.4	15.4	. . .
	M	28	0:35	6:30	13:00	19:03
			1.5	15.0	1.0	15.0
	Tu	29	1:27	7:22	13:50	19:57
			2.0	14.4	1.7	14.5
☾	W	30	2:22	8:18	14:50	20:55
			2.5	13.7	2.3	14.0

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	DECEMBER.					
E	Th	1	3:25	9:24	15:52	22:00
			2.7	13.2	2.7	13.7
P	F	2	4:31	10:35	16:57	23:09
			2.7	13.0	2.7	13.8
	S	3	5:37	11:47	18:02	. . .
			2.3	13.3	2.3	. . .
	S	4	0:14	6:38	12:52	19:02
			14.2	1.5	13.9	1.8
	M	5	1:14	7:36	13:50	19:57
			14.9	0.8	14.6	1.1
●	Tu	6	2:08	8:27	14:42	20:50
			15.5	0.0	15.3	0.5
	W	7	3:00	9:18	15:30	21:39
			16.0	—0.5	15.7	0.5
S	Th	8	3:46	10:03	16:17	22:27
			16.1	—0.6	15.9	0.5
	F	9	4:30	10:50	17:00	23:12
			16.0	—0.5	15.7	0.7
	S	10	5:17	11:34	17:45	23:58
			15.5	0.0	15.3	1.3
	S	11	6:00	12:18	18:28	. . .
			14.8	0.7	14.7	. . .
	M	12	0:44	6:42	13:04	19:14
			2.0	14.0	1.6	14.0
	Tu	13	1:30	7:27	13:52	20:00
			2.7	13.1	2.5	13.3
☽ A	W	14	2:20	8:16	14:40	20:48
			3.4	12.3	3.4	12.7
E	Th	15	3:12	9:07	15:30	21:40
			4.0	11.8	4.0	12.2
	F	16	4:07	10:03	16:23	22:33
			4.2	11.4	4.2	12.2
	S	17	5:00	11:02	17:17	23:26
			4.1	11.4	4.2	12.2
	S	18	5:54	12:00	18:10	. . .
			3.7	11.8	4.1	. . .
	M	19	0:18	6:44	12:52	19:02
			12.7	3.0	12.5	3.3
	Tu	20	1:06	7:32	13:40	19:50
			13.4	2.1	13.4	2.6
	W	21	1:52	8:18	14:25	20:35
			14.2	1.2	14.3	2.1
○ N	Th	22	2:37	9:02	15:08	21:20
			15.0	0.4	15.0	1.2
	F	23	3:20	9:45	15:50	22:02
			15.6	—0.2	15.7	0.7
	S	24	4:02	10:30	16:33	22:47
			16.0	—0.5	16.1	0.5
	S	25	4:47	11:12	17:17	23:34
			16.1	—0.5	16.2	0.5
	M	26	5:32	11:58	18:02	. . .
			16.0	—0.3	16.1	. . .
P	Tu	27	0:20	6:18	12:45	18:48
			0.7	15.6	0.3	15.7
	W	28	1:10	7:07	13:32	19:39
			1.1	15.0	1.0	15.2
E ☾	Th	29	2:04	8:01	14:27	20:23
			1.6	14.3	1.8	14.6
	F	30	3:02	9:00	15:26	21:35
			2.1	13.5	2.4	14.1
	S	31	4:06	10:09	16:30	22:40
			2.3	13.0	2.8	13.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Panama Mean Local Civil for the meridian 79° 32′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	1:05 1.9	7:25 6.5	14:30 —0.8	20:48 4.2	
N ○	S	2	1:48 1.8	8:06 6.7	15:12 —1.3	21:30 4.4	
	S	3	2:22 1.7	8:47 6.8	15:53 —1.4	22:12 4.5	
P	M	4	3:10 1.7	9:32 6.7	16:37 —1.2	23:00 4.5	
	Tu	5	4:00 1.8	10:17 6.3	17:20 —0.8	23:50 4.6	
	W	6	4:53 1.9	11:05 5.6	18:05 —0.5	. . . . .	
	Th	7	0:42 4.6	6:00 2.0	11:59 5.1	18:52 0.1	
E	F	8	1:36 4.7	7:17 2.0	12:58 4.4	19:39 0.7	
☾	S	9	2:32 4.9	8:47 1.9	14:15 3.8	20:32 1.3	
	S	10	3:34 5.1	10:20 1.6	15.45 3.5	21:33 1.6	
	M	11	4:32 5.3	11:42 1.1	17:12 3.5	22:37 1.8	
	Tu	12	5:26 5.6	12:46 0.6	18:25 3.6	23:32 1.9	
	W	13	6:14 5.9	13:32 0.3	19:22 3.7	. . . . .	
	Th	14	0:21 2.0	6:55 6.0	14:13 —0.1	20:09 3.8	
S	F	15	1:04 2.1	7:32 6.2	14:49 —0.4	20:49 4.0	
	S	16	1:42 2.1	8:08 6.2	15:20 —0.5	21:26 3.8	
●	S	17	2:16 2.1	8:40 6.0	15:52 —0.4	22:00 3.9	
	M	18	2:47 2.2	9:11 5.9	16:19 —0.2	22:32 4.0	
A	Tu	19	3:16 2.3	9:42 5.6	16:43 0.0	23:02 4.0	
	W	20	3:49 2.3	10:10 5.2	17:09 0.3	23:35 4.1	
	Th	21	4:24 2.3	10:38 4.7	17:32 0.6	. . . . .	
E	F	22	0:08 4.2	5:09 2.4	11:10 4.4	18:00 0.9	
	S	23	0:48 4.3	6:05 2.4	11:45 4.0	18:32 1.2	
	S	24	1:37 4.4	7:14 2.3	12:42 3.5	19:16 1.6	
☽	M	25	2:35 4.5	8:55 2.1	14:15 3.2	20:18 2.0	
	Tu	26	3:39 4.7	10:35 1.6	16:06 3.3	21:30 2.2	
	W	27	4:40 5.1	11:47 0.9	17:38 3.4	22:41 2.2	
	Th	28	5:37 5.6	12:44 0.2	18:42 3.7	23:47 2.2	
N	F	29	6:27 6.1	13:31 —0.4	19:35 4.1	. . . . .	
	S	30	0:42 1.9	7:12 6.5	14:13 —0.9	20:22 4.4	
	S	31	1:30 1.8	7:57 6.8	14:49 —1.2	21:04 4.7	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○ P	M	1	2:17 1.4	8:42 6.8	15:37 —1.2	21:45 5.0	
	Tu	2	3:02 1.3	9:25 6.7	16:16 —1.0	22:28 5.0	
	W	3	3:50 1.2	10:10 6.3	16:56 —0.7	23:11 5.1	
E	Th	4	4:42 1.2	10:57 5.8	17:37 —0.1	23:58 5.1	
	F	5	5:39 1.3	11:46 5.0	18:17 0.5	. . . . .	
	S	6	0:47 5.1	6:46 1.5	12:42 4.3	19:03 1.2	
	S	7	1:42 4.9	8:08 1.6	13:50 3.6	19:57 1.8	
☾	M	8	2:49 4.9	9:42 1.5	15:20 3.3	21:06 2.1	
	Tu	9	4:00 5.0	11:18 1.2	16:57 3.3	22:18 2.3	
	W	10	5:04 5.2	12:27 0.8	18:15 3.4	23:22 2.4	
S	Th	11	5:59 5.4	13:17 0.4	19:08 3.8	. . . . .	
	F	12	0:17 2.2	6:44 5.7	13:50 0.0	19:48 4.0	
	S	13	1:01 2.2	7:22 5.7	14:27 —0.1	20:24 4.1	
	S	14	1:39 2.0	7:57 5.9	14:56 —0.2	20:54 4.0	
A	M	15	2:11 1.9	8:30 5.7	15:23 —0.1	21:21 4.3	
●	Tu	16	2:40 1.8	9:00 5.7	15:46 0.1	21:48 4.4	
	W	17	3:08 1.7	9:30 5.4	16:10 0.2	22:17 4.6	
	Th	18	3:38 1.6	9:59 5.2	16:32 0.5	22:45 4.7	
E	F	19	4:10 1.7	10:38 4.7	16:55 0.8	23:11 4.7	
	S	20	4:45 1.6	11:01 4.4	17:22 1.2	23:46 4.7	
	S	21	5:32 1.6	11:41 4.0	17:54 1.6	. . . . .	
	M	22	0:28 4.7	6:32 1.7	12:37 3.5	18:40 2.0	
	Tu	23	1:27 4.7	7:58 1.6	13:52 3.3	19:42 2.4	
☽	W	24	2:44 4.7	9:40 1.3	15:47 3.2	21:10 2.8	
	Th	25	4:02 4.9	11:09 0.8	17:18 3.5	22:35 2.6	
N	F	26	5:13 5.2	12:14 0.2	18:22 3.9	23:44 2.2	
	S	27	6:10 5.8	13:04 —0.3	19:10 4.3	. . . . .	
	S	28	0:38 1.8	7:01 6.2	13:48 —0.7	19:53 4.8	
	M	29	1:27 1.3	7:48 6.5	14:30 —0.8	20:32 5.2	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	2:13 0.9	8:33 6.6	15:13 —0.6	21:12 5.5	
	W	2	2:57 0.5	9:17 6.5	15:47 —0.5	21:51 5.7	
E	Th	3	3:42 0.4	10:00 6.0	16:24 —0.1	22:32 5.7	
	F	4	4:28 0.5	10:45 5.4	17:02 0.4	23:14 5.4	
	S	5	5:16 0.7	11:33 4.8	17:43 1.2	23:58 5.3	
	S	6	6:14 1.0	12:27 4.0	18:30 1.8	. . . . .	
	M	7	0:48 5.0	7:24 1.2	13:37 3.4	19:32 2.3	
☾	Tu	8	1:56 4.8	8:52 1.4	15:07 3.2	20:47 2.6	
S	W	9	3:15 4.7	10:28 1.2	16:44 3.4	22:10 2.8	
	Th	10	4:33 4.6	11:45 0.9	17:55 3.6	23:22 2.7	
	F	11	5:37 4.8	12:37 0.6	18:43 3.8	. . . . .	
	S	12	0:15 2.4	6:22 5.0	13:17 0.4	19:17 4.2	
A	S	13	0:58 2.1	7:07 5.2	13:48 0.3	19:47 4.4	
	M	14	1:34 1.8	7:42 5.3	14:16 0.3	20:14 4.6	
	Tu	15	2:08 1.5	8:16 5.3	14:39 0.4	20:40 4.9	
●	W	16	2:31 1.3	8:46 5.3	15:04 0.5	21:07 5.0	
E	Th	17	2:59 1.0	9:16 5.1	15:28 0.6	21:32 5.2	
	F	18	3:26 0.9	9:47 4.9	15:53 1.0	21:57 5.1	
	S	19	3:55 0.8	10:20 4.7	16:19 1.2	22:26 5.1	
	S	20	4:32 0.8	10:57 4.3	16:50 1.6	23:02 5.0	
	M	21	5:17 1.0	11:43 3.8	17:28 2.0	23:42 4.9	
	Tu	22	6:14 1.1	12:40 3.4	18:29 2.4	. . . . .	
	W	23	0:38 4.7	7:29 1.1	14:03 3.2	19:32 2.6	
N ☽	Th	24	1:57 4.7	9:00 1.0	15:46 3.3	21:11 2.8	
	F	25	3:27 4.7	10:24 0.7	17:00 3.7	22:37 2.7	
	S	26	4:48 5.0	11:33 0.3	17:56 4.2	23:42 2.0	
	S	27	5:52 5.3	12:27 0.0	18:42 4.7	. . . . .	
	M	28	0:36 1.4	6:48 5.7	13:13 —0.1	19:22 5.3	
P	Tu	29	1:23 0.7	7:38 5.9	13:55 —0.1	20:00 5.7	
E	W	30	2:04 0.4	8:24 6.0	14:37 —0.1	20:39 5.9	
○	Th	31	2:46 0.0	9:09 5.9	15:16 0.2	21:16 6.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of W.	Mo.	Time and Height of High and Low Water.			
	F	1	3:30	9:55	15:54	21:54		S	1	4:10	10:35	15:49	22:02		W	1	5:28	12:08	16:35	22:48
			—0.1	5.5	0.7	6.0				—0.3	4.3	1.9	5.1				—0.1	3.3	2.8	5.3
	S	2	4:16	10:40	16:30	22:35		M	2	4:57	11:27	16:28	22:40		Th	2	6:08	13:02	17:27	23:27
			—0.1	4.9	1.2	5.9				—0.1	3.8	2.2	4.4				0.3	3.5	2.9	4.6
	S	3	5:04	11:30	17:10	23:17	S	Tu	3	5:43	12:22	17:14	23:21		F	3	6:48	14:02	18:44	. . .
			0.2	4.2	1.8	5.5				0.2	3.6	2.6	5.2				0.6	3.6	2.9	. . .
	M	4	5:56	12:27	17:57	. . .		W	4	6:32	13:28	18:17	. . .		S	4	0:10	7:30	14:58	20:18
			0.5	3.5	2.3	. . .				0.5	3.3	2.7	. . .				4.2	1.0	3.6	2.9
	Tu	5	0:05	6:56	13:34	18:59		Th	5	0:12	7:27	14:42	19:40	A	S	5	1:08	8:13	15:40	21:54
			5.2	0.8	3.3	2.7				4.7	0.8	3.4	2.9	☾			3.7	1.2	4.0	2.9
S	W	6	1:04	8:09	15:00	20:24		F	6	1:12	8:26	15:54	21:28		M	6	2:32	8:57	16:20	23:02
			4.7	1.0	3.2	2.9				4.2	1.1	3.6	2.9				3.4	1.4	4.4	2.7
☾	Th	7	2:20	9:28	16:26	21:55	☾	S	7	2:37	9:27	16:41	22:50	E	Tu	7	3:57	9:50	17:00	23:55
			4.3	1.1	3.4	2.9				3.8	1.2	3.9	2.9				3.2	1.6	4.8	1.9
	F	8	3:46	10:40	17:25	23:17	A	S	8	4:00	10:19	17:16	23:45		W	8	5:04	10:45	17:36	. . .
			4.2	1.0	3.8	2.8				3.6	1.3	4.2	2.3				3.3	1.6	5.1	. . .
	S	9	5:02	11:33	18:05	. . .		M	9	5:06	11:04	17:46	. . .		Th	9	0:30	6:08	11:30	18:12
			4.1	1.0	4.1	. . .				3.7	1.4	4.6	. . .				1.4	3.6	1.6	5.4
A	S	10	0:07	6:00	12:16	18:38	E	Tu	10	0:25	6:02	11:52	18:18		F	10	1:08	7:03	12:12	18:48
			2.3	4.3	0.9	4.5				1.9	3.9	1.9	4.9				0.7	3.7	1.7	5.9
	M	11	0:45	6:43	12:52	19:06		W	11	0:54	6:48	12:27	18:48		S	11	1:47	7:52	12:54	19:23
			1.9	4.6	0.8	4.8				1.4	4.1	1.3	5.3				0.1	3.9	1.7	6.2
	Tu	12	1:16	7:20	13:28	19:33		Th	12	1:28	7:32	13:02	19:17		S	12	2:26	8:36	13:33	20:00
			1.5	4.7	0.9	5.0				0.9	4.4	1.3	5.7				—0.4	4.0	1.9	6.4
E	W	13	1:43	7:57	13:57	20:01		F	13	2:02	8:12	13:34	19:50	●	M	13	3:06	9:25	14:15	20:40
			1.1	4.8	0.8	5.3				0.4	4.3	1.5	5.9				—0.9	4.0	1.9	6.5
	Th	14	2:14	8:31	14:22	20:27		S	14	2:35	8:53	14:05	20:26	N	Tu	14	3:47	10:12	14:57	21:22
			0.8	5.0	1.0	5.5				0.0	4.2	1.6	6.0				—1.1	4.1	2.0	6.5
●	F	15	2:45	9:06	14:49	20:53	●	S	15	3:13	9:37	14:40	20:57		W	15	4:30	11:00	15:45	22:05
			0.5	4.8	1.2	5.6				—0.2	4.2	1.8	6.1				—1.0	4.1	2.2	6.3
	S	16	3:17	9:44	15:17	21:21		M	16	3:52	10:22	15:17	21:31		Th	16	5:14	11:52	16:39	22:52
			0.3	4.6	1.3	5.7				—0.5	4.1	2.0	6.0				—0.7	4.1	2.5	5.8
	S	17	3:51	10:22	15:48	21:52	N	Tu	17	4:32	11:11	15:57	22:12	P	F	17	6:00	12:47	17:46	23:43
			0.1	4.3	1.8	5.6				—0.5	3.9	2.3	5.9				—0.4	4.1	2.5	5.3
	M	18	4:28	11:05	16:21	22:28		W	18	5:18	12:06	16:47	22:56		S	18	6:48	13:42	19:05	. . .
			0.2	4.0	2.0	5.5				—0.4	3.9	2.5	5.6				0.0	4.3	2.5	. . .
	Tu	19	5:18	11:56	17:02	23:10		Th	19	6:09	13:07	17:58	23:52		S	19	0:46	7:40	14:37	20:32
			0.3	3.6	2.4	5.3				—0.1	3.8	2.7	5.2				4.7	0.4	4.5	2.2
N	W	20	6:10	12:58	18:03	. . .		F	20	7:06	14:10	19:21	. . .	☽	M	20	2:00	8:33	15:32	21:58
			0.4	3.5	2.8	. . .				0.0	4.0	2.9	. . .	E			4.3	0.8	5.0	1.9
	Th	21	0:07	7:15	14:16	19:32		S	21	1:02	8:06	15:12	20:56		Tu	21	3:27	9:30	16:25	23:15
			5.0	0.6	3.5	2.9				4.7	0.4	4.1	2.8				3.9	1.1	5.3	1.3
☽	F	22	1:27	8:32	15:35	21:10	☽	S	22	2:28	9:10	16:05	22:20		W	22	4:47	10:30	17:16	. . .
			4.7	0.6	3.6	2.9	P			4.5	0.6	4.5	2.1				3.8	1.4	5.7	. . .
	S	23	3:02	9:45	16:36	22:34		M	23	3:55	10:05	16:54	23:27		Th	23	0:17	6:00	11:20	18:00
			4.6	0.6	4.1	2.5				4.2	0.7	5.0	1.5				0.8	3.7	1.6	6.1
	S	24	4:27	10:50	17:25	23:36	E	Tu	24	5:12	11:07	17:40	. . .		F	24	1:08	7:00	12:09	18:45
			4.6	0.5	4.6	1.7				4.4	0.9	5.5	. . .				0.2	3.7	1.7	6.3
	M	25	5:37	11:45	18:07	. . .		W	25	0:18	6:16	11:56	18:21		S	25	1:56	7:54	12:54	19:24
			4.8	0.5	5.2	. . .				0.8	4.5	1.0	6.0				—0.3	3.8	1.8	6.5
P	Tu	26	0:25	6:34	12:38	18:49		Th	26	1:10	7:12	12:40	19:01		S	26	2:38	8:40	13:37	20:02
E			1.0	5.1	0.5	5.7				0.3	4.5	1.2	6.4				—0.5	3.7	2.0	6.5
	W	27	1:12	7:27	13:22	19:28		F	27	1:57	8:04	13:22	19:40	S	M	27	3:17	9:28	14:14	20:40
			0.4	5.3	0.5	6.0				—0.3	4.3	1.4	6.5	○			—0.6	3.8	2.2	6.4
	Th	28	1:58	8:14	13:58	20:07		S	28	2:41	8:52	14:00	20:17		Tu	28	3:58	10:12	14:51	21:15
			—0.1	5.2	0.7	6.3				—0.5	4.3	1.7	6.5				—0.5	3.5	2.4	6.2
○	F	29	2:44	9:01	14:37	20:46	○	S	29	3:22	9:41	14:39	20:55		W	29	4:34	10:52	15:17	21:52
			—0.4	5.0	1.0	6.5				—0.6	4.0	1.9	6.5				—0.4	3.5	2.5	5.8
	S	30	3:28	9:47	15:13	21:24	S	M	30	4:05	10:25	15:15	21:35		Th	30	5:06	11:35	16:04	22:25
			—0.5	4.6	1.4	6.3				—0.6	3.8	2.2	6.2				—0.1	3.5	2.7	5.3
								Tu	31	4:47	11:17	15:52	22:12							
										—0.3	3.6	2.5	5.8							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	5:38 0.3	12:17 3.7	16:47 2.8	22:57 4.8
A	S	2	6:08 0.5	13:00 3.7	17:34 2.9	23:29 4.3
	S	3	6:37 0.9	13:42 4.0	18:48 2.9	. . . . . .
E	M	4	0:07 3.8	7:10 1.3	14:29 4.1	20:10 2.9
☾	Tu	5	1:00 3.3	7:45 1.5	15:20 4.4	21:52 2.7
	W	6	2:27 3.1	8:38 1.7	16:07 4.6	23:06 2.0
	Th	7	4:08 3.1	9:40 2.0	16:54 5.0	. . . . . .
	F	8	0:00 1.4	5:30 3.1	10:37 2.1	17:40 5.5
	S	9	0:47 0.7	6:37 3.4	11:34 2.1	18:21 6.0
	S	10	1:32 0.0	7:30 3.7	12:24 2.0	19:02 6.4
N	M	11	2:12 —0.5	8:18 4.1	13:14 2.0	19:42 6.6
●	Tu	12	2:52 —0.9	9:03 4.2	14:00 1.8	20:24 6.7
	W	13	3:35 —1.1	9:47 4.4	14:47 1.8	21:09 6.7
P	Th	14	4:14 —1.0	10:38 4.5	15:34 1.8	21:55 6.4
	F	15	4:58 —0.7	11:20 4.6	16:30 1.8	22:42 5.9
	S	16	5:38 —0.4	12:08 4.6	17:28 1.9	23:33 5.3
E	S	17	6:22 —0.2	13:00 4.8	18:40 1.9	. . . . . .
	M	18	0:30 4.7	7:05 0.6	13:55 4.9	20:00 1.8
☽	Tu	19	1:38 3.9	7:58 1.2	14:55 5.1	21:32 1.7
	W	20	3:02 3.6	8:59 1.6	15:58 5.2	23:00 1.2
	Th	21	4:33 3.4	10:02 1.9	16:56 5.5	. . . . . .
	F	22	0:12 0.7	5:50 3.4	11:00 2.1	17:47 5.8
	S	23	1:07 0.3	6:55 3.5	11:55 2.2	18:32 6.1
S	S	24	1:52 0.0	7:48 3.7	12:43 2.2	19:15 6.3
	M	25	2:32 —0.3	8:27 3.9	13:27 2.1	19:52 6.2
	Tu	26	3:06 —0.3	9:08 3.8	14:02 2.1	20:27 6.1
○	W	27	3:40 —0.4	9:40 4.0	14:39 2.2	21:00 6.0
	Th	28	4:08 —0.2	10:14 4.1	15:11 2.2	21:32 5.7
	F	29	4:33 0.0	10:45 4.0	15:42 2.2	22:02 5.2
A	S	30	5:00 0.3	11:20 4.0	16:18 2.2	22:31 4.8
	S	31	5:20 0.7	11:52 4.2	16:57 2.4	23:00 4.4

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	5:44 1.0	12:27 4.3	17:47 2.4	23:35 4.0
	Tu	2	6:15 1.3	13:11 4.3	18:45 2.4	. . . . . .
	W	3	0:20 3.4	6:49 1.8	14:04 4.4	20:16 2.2
☾	Th	4	1:36 3.1	7:46 2.1	15:08 4.5	22:00 1.8
	F	5	3:29 3.0	8:56 2.3	16:12 4.9	23:18 1.2
	S	6	5:04 3.2	10:12 2.4	17:11 5.3	. . . . . .
	S	7	0:20 0.5	6:15 3.5	11:20 2.3	18:02 5.8
N	M	8	1:07 —0.1	7:12 3.9	12:18 2.0	18:50 6.2
	Tu	9	1:50 —0.6	7:54 4.2	13:09 1.7	19:37 6.6
	W	10	2:32 —1.0	8:37 4.6	13:54 1.4	20:20 6.7
●	Th	11	3:12 —1.0	9:17 4.9	14:40 1.2	21:00 6.7
P	F	12	3:50 —0.7	10:00 5.1	15:27 1.0	21:45 6.4
	S	13	4:30 —0.5	10:40 5.2	16:15 0.9	22:32 5.9
E	S	14	5:10 0.0	11:26 5.2	17:10 1.1	23:22 5.2
	M	15	5:50 0.5	12:12 5.2	18:12 1.2	. . . . . .
	Tu	16	0:20 4.4	6:36 1.2	13:06 5.1	19:21 1.4
☽	W	17	1:26 3.7	7:27 1.8	14:10 4.6	20:54 1.4
	Th	18	2:50 3.3	8:41 2.3	15:24 5.0	22:30 1.2
	F	19	4:24 3.1	9:54 2.5	16:34 5.2	23:51 0.7
S	S	20	5:45 3.2	11:00 2.5	17:33 5.4	. . . . . .
	S	21	0:47 0.3	6:42 3.6	11:57 2.3	18:24 5.7
	M	22	1:30 0.0	7:27 3.9	12:46 2.2	19:07 5.8
	Tu	23	2:07 —0.1	8:02 4.1	13:26 1.9	19:43 5.9
	W	24	2:39 —0.1	8:35 4.3	14:00 1.8	20:17 5.8
○	Th	25	3:05 0.0	9:03 4.6	14:30 1.7	20:48 5.6
A	F	26	3:28 0.1	9:30 4.6	15:00 1.7	21:16 5.4
	S	27	3:52 0.4	9:57 4.7	15:27 1.6	21:47 5.1
E	S	28	4:10 0.6	10:24 4.7	15:57 1.6	22:14 4.7
	M	29	4:37 1.0	10:50 4.7	16:30 1.5	22:47 4.3
	Tu	30	5:00 1.3	11:18 4.7	17:10 1.7	23:24 3.9
	W	31	5:32 1.6	11:57 4.6	18:02 1.7	. . . . . .

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	0:08 3.3	6:11 2.1	12:47 4.6	19:18 1.7
☾	F	2	1:19 3.1	7:13 2.5	14:02 4.5	21:00 1.5
	S	3	3:15 3.1	8:40 2.7	15:27 4.7	22:32 1.0
N	S	4	4:48 3.2	10:12 2.7	16:43 5.1	23:42 0.5
	M	5	5:53 3.8	11:20 2.2	17:44 5.5	. . . . . .
	Tu	6	0:35 —0.1	6:43 4.3	12:17 1.8	18:38 6.0
	W	7	1:20 —0.4	7:24 4.7	13:07 1.2	19:26 6.3
	Th	8	2:00 —0.6	8:04 5.2	13:50 0.7	20:08 6.5
P ●	F	9	2:38 —0.6	8:43 5.6	14:33 0.4	20:55 6.4
E	S	10	3:18 —0.4	9:23 5.8	15:16 0.2	21:37 6.0
	S	11	3:56 0.0	10:02 5.8	16:00 0.1	22:23 5.6
	M	12	4:33 0.5	10:44 5.7	16:49 0.3	23:12 4.8
	Tu	13	5:18 1.1	11:29 5.6	17:46 0.7	. . . . . .
	W	14	0:10 4.2	6:08 1.7	12:22 5.3	18:56 0.8
	Th	15	1:20 3.6	7:10 2.3	13:22 5.0	20:20 1.0
☽	F	16	2:48 3.3	8:26 2.6	14:39 4.8	21:55 0.9
S	S	17	4:22 3.4	9:52 2.7	16:02 4.7	23:12 0.7
	S	18	5:34 3.6	11:08 2.6	17:12 4.8	. . . . . .
	M	19	0:10 0.5	6:22 4.0	12:04 2.3	18:08 5.0
	Tu	20	0:52 0.3	7:00 4.3	12:47 1.9	18:52 5.2
	W	21	1:28 0.3	7:31 4.6	13:23 1.6	19:32 5.3
A	Th	22	1:56 0.3	7:58 4.8	13:57 1.3	20:05 5.3
	F	23	2:21 0.4	8:23 5.0	14:22 1.2	20:35 5.2
○ E	S	24	2:44 0.6	8:49 5.2	14:44 1.0	21:04 5.0
	S	25	3:09 0.8	9:12 5.2	15:08 0.9	21:33 4.8
	M	26	3:32 1.0	9:35 5.1	15:39 0.8	22:04 4.4
	Tu	27	3:56 1.3	10:00 5.2	16:11 0.8	22:42 4.2
	W	28	4:22 1.7	10:30 5.1	16:52 1.0	23:22 3.8
	Th	29	4:58 2.1	11:06 5.0	17:44 1.1	. . . . . .
	F	30	0:16 3.4	5:44 2.4	11:56 4.8	18:50 1.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	1:32 3.2	6:57 2.7	13:12 4.6	20:18 1.1
☾	S	2	3:14 3.3	8:42 2.8	14:52 4.5	21:47 0.8
	M	3	4:34 3.6	10:14 2.7	16:19 4.7	22:59 0.3
	Tu	4	5:32 4.1	11:22 2.2	17:27 5.1	23:55 0.2
	W	5	6:15 4.7	12:16 1.5	18:24 5.5	. . . . . .
	Th	6	0:42 0.0	6:57 5.4	13:00 0.8	19:15 5.7
P	F	7	1:25 0.0	7:35 5.9	13:40 0.1	20:02 5.9
E ●	S	8	2:07 0.0	8:12 6.1	14:22 —0.2	20:48 5.8
	S	9	2:46 0.3	8:50 6.3	15:07 —0.5	21:34 5.5
	M	10	3:22 0.7	9:26 6.3	15:52 —0.5	22:22 5.0
	Tu	11	4:01 1.2	10:07 6.2	16:39 —0.2	23:10 4.3
	W	12	4:41 1.7	10:47 5.9	17:34 0.0	. . . . . .
	Th	13	0:06 3.9	5:29 2.2	11:35 5.5	18:33 0.4
S	F	14	1:18 3.5	6:32 2.7	12:32 5.0	19:43 0.7
☽	S	15	2:45 3.4	8:00 2.8	13:50 4.5	21:00 0.8
	S	16	4:10 3.7	9:44 2.9	15:20 4.2	22:15 0.8
	M	17	5:11 4.0	11:06 2.7	16:44 4.2	23:15 0.8
	Tu	18	5:52 4.4	12:00 2.2	17:44 4.3	. . . . . .
	W	19	0:00 0.7	6:27 4.7	12:40 1.8	18:30 4.5
A	Th	20	0:38 0.8	6:58 5.0	13:09 1.3	19:10 4.6
E	F	21	1:12 0.8	7:20 5.2	13:38 1.0	19:46 4.7
	S	22	1:37 0.9	7:45 5.4	14:05 0.7	20:19 4.7
	S	23	2:00 1.0	8:10 5.6	14:33 0.5	20:52 4.6
○	M	24	2:25 1.2	8:34 5.7	15:02 0.3	21:27 4.5
	Tu	25	2:50 1.4	9:00 5.7	15:34 0.1	22:04 4.2
	W	26	3:16 1.7	9:27 5.7	16:06 0.1	22:45 3.9
	Th	27	3:48 2.0	9:59 5.6	16:46 0.2	23:30 3.7
	F	28	4:24 2.3	10:37 5.4	17:36 0.3	. . . . . .
N	S	29	0:30 3.5	5:18 2.6	11:25 5.0	18:37 0.5
	S	30	1:44 3.5	6:40 2.7	12:33 4.7	19:48 0.7
☾	M	31	3:02 3.7	8:31 2.9	14:10 4.4	21:03 0.7

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	4:08 4.0	10:06 2.7	15:47 4.4	22:14 0.6
	W	2	4:59 4.5	11:12 1.8	17:06 4.6	23:10 0.6
	Th	3	5:43 5.2	12:04 1.0	18:09 4.8	. . . . . .
E	F	4	0:09 0.5	6:23 5.7	12:52 0.4	19:02 5.1
P	S	5	0:52 0.6	7:01 6.2	13:38 —0.2	19:52 5.2
	S	6	1:31 0.7	7:39 6.6	14:21 —0.6	20:40 5.0
●	M	7	2:10 1.0	8:19 6.7	15:05 —0.8	21:27 4.7
	Tu	8	2:47 1.3	8:57 6.7	15:50 —0.8	22:15 4.4
	W	9	3:22 1.7	9:35 6.4	16:35 —0.7	23:04 4.0
S	Th	10	4:02 2.1	10:16 6.0	17:22 —0.3	. . . . . .
	F	11	0:02 3.7	4:48 2.5	10:57 5.6	18:13 0.1
	S	12	1:06 3.5	5:48 2.8	11:47 5.0	19:09 0.5
	S	13	2:22 3.5	7:16 2.9	12:49 4.5	20:07 0.8
☽	M	14	3:35 3.8	9:06 2.9	14:08 3.9	21:07 1.0
	Tu	15	4:30 4.0	10:40 2.9	15:37 3.7	22:00 1.2
A	W	16	5:07 4.4	11:42 2.3	16:50 3.7	22:47 1.3
	Th	17	5:40 4.8	12:25 1.8	17:52 3.8	23:37 1.3
E	F	18	6:12 5.1	12:57 1.3	18:39 4.0	. . . . . .
	S	19	0:12 1.3	6:39 5.4	13:27 0.9	19:20 4.1
	S	20	0:45 1.4	7:05 5.7	13:56 0.5	20:00 4.2
	M	21	1:16 1.5	7:32 5.9	14:27 0.2	20:38 4.1
○	Tu	22	1:45 1.6	8:03 6.0	15:00 —0.2	21:18 4.1
	W	23	2:13 1.8	8:34 6.2	15:33 —0.4	22:00 4.0
	Th	24	2:47 1.9	9:07 6.2	16:14 —0.5	22:46 3.9
N	F	25	3:26 2.1	9:45 6.1	16:52 —0.4	23:35 3.9
	S	26	4:10 2.3	10:25 5.8	17:36 —0.2	. . . . . .
	S	27	0:32 3.8	5:07 2.6	11:13 5.4	18:27 0.1
	M	28	1:32 3.8	6:29 2.6	12:14 4.9	19:24 0.4
☾	Tu	29	2:34 4.1	8:08 2.8	13:36 4.4	20:26 0.7
	W	30	3:34 4.4	9:42 2.3	15:10 4.2	21:27 0.9

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	Th	1	4:28 5.0	11:00 1.6	16:37 4.1	22:30 1.0
P	F	2	5:14 5.4	11:57 0.9	17:49 4.3	23:26 1.1
	S	3	5:58 5.9	12:52 0.3	18:50 4.4	. . . . . .
	S	4	0:14 1.2	6:40 6.4	13:40 —0.4	19:43 4.4
	M	5	0:58 1.3	7:20 6.7	14:23 —0.7	20:34 4.3
●	Tu	6	1:42 1.5	7:57 6.9	15:07 —1.0	21:20 4.2
	W	7	2:18 1.7	8:33 6.8	15:47 —1.0	22:07 4.0
S	Th	8	2:56 2.0	9:12 6.6	16:30 —0.8	22:54 3.8
	F	9	3:33 2.2	9:52 6.2	17:19 —0.5	23:42 3.7
	S	10	4:17 2.6	10:31 5.6	17:50 —0.1	. . . . . .
	S	11	0:36 3.7	5:10 2.9	11:12 5.1	18:32 0.3
	M	12	1:35 3.7	6:20 2.9	11:53 4.3	19:10 0.7
	Tu	13	2:35 3.8	7:42 2.9	12:44 3.8	19:52 1.2
☽ A	W	14	3:24 4.1	9:32 2.9	14:00 3.4	20:36 1.4
E	Th	15	4:11 4.3	11:04 2.7	15:29 3.1	21:26 1.6
	F	16	4:52 4.7	12:00 2.2	16:56 3.2	22:25 1.7
	S	17	5:30 5.0	12:38 1.6	18:00 3.3	23:12 1.8
	S	18	6:04 5.4	13:10 1.0	18:52 3.3	23:54 1.8
	M	19	6:37 5.8	13:44 0.3	19:41 3.7	. . . . . .
	Tu	20	0:36 1.8	7:12 6.0	14:20 —0.2	20:25 3.9
	W	21	1:14 1.9	7:43 6.4	14:54 —0.6	21:07 4.0
○ N	Th	22	1:53 2.0	8:20 6.5	15:30 —0.8	21:49 4.1
	F	23	2:33 2.0	8:59 6.5	16:07 —0.9	22:32 4.1
	S	24	3:16 2.1	9:38 6.4	16:47 —0.8	23:19 4.1
	S	25	4:04 2.2	10:20 6.0	17:28 —0.5	. . . . . .
	M	26	0:09 4.2	5:01 2.3	11:09 5.5	18:12 —0.1
P	Tu	27	1:02 4.3	6:12 2.3	12:06 4.9	19:01 0.4
	W	28	1:55 4.5	7:37 2.2	13:14 4.3	19:49 0.8
E ☾	Th	29	2:53 4.8	9:10 2.0	14:39 3.8	20:47 1.2
	F	30	3:52 5.1	10:38 1.5	16:10 3.7	21:54 1.5
	S	31	4:47 5.5	11:52 0.9	17:32 3.6	22:54 1.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day: a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 2.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:08 2.7	9:15 6.1	16:17 —1.0	23:24 4.6	
N ○	S	2	3:57 2.6	10:00 6.8	17:00 —1.2	. . . . . .	
	S	3	0:10 4.8	4:47 2.7	10:48 6.1	17:47 —1.2	
P	M	4	0:55 4.9	5:37 2.7	11:38 6.0	18:31 —1.1	
	Tu	5	1:38 5.1	6:30 2.7	12:32 5.8	19:17 —0.7	
	W	6	2:21 5.1	7:27 2.6	13:30 5.3	20:04 —0.3	
	Th	7	3:05 5.3	8:32 2.4	14:32 4.8	20:50 0.3	
E	F	8	3:58 5.4	9:45 2.2	15:42 4.3	21:42 0.9	
☾	S	9	4:40 5.6	10:58 1.9	17:00 4.0	22:42 1.5	
	S	10	5:33 5.6	12:08 1.5	18:26 3.8	23:44 2.1	
	M	11	6:25 5.7	13:16 0.9	19:47 3.7	. . . . . .	
	Tu	12	0:42 2.5	7:17 5.8	14:14 0.4	21:00 4.0	
	W	13	1:32 2.7	8:08 5.8	15:07 0.0	22:00 4.2	
	Th	14	2:28 2.9	8:55 5.9	15:52 —0.2	22:52 4.4	
S	F	15	3:17 2.9	9:37 5.8	16:33 —0.5	23:35 4.6	
	S	16	4:00 3.0	10:19 5.8	17:08 —0.8	. . . . . .	
●	S	17	0:16 4.6	4:42 3.0	10:57 5.5	17:43 —0.4	
	M	18	0:58 4.6	5:24 3.0	11:30 5.3	18:16 —0.2	
A	Tu	19	1:27 4.6	6:04 3.0	12:16 5.1	18:46 0.1	
	W	20	1:59 4.7	6:45 3.0	12:42 4.7	19:17 0.4	
	Th	21	2:27 4.7	7:30 2.8	13:20 4.5	19:48 0.6	
E	F	22	2:55 4.8	8:20 2.7	14:07 4.2	20:26 1.0	
	S	23	3:24 4.9	9:17 2.6	15:02 3.8	21:07 1.5	
	S	24	3:59 5.0	10:14 2.1	16:07 3.6	21:55 1.9	
☽	M	25	4:38 5.1	11:18 1.7	17:25 3.4	22:47 2.2	
	Tu	26	5:25 5.3	12:25 1.1	18:58 3.4	23:50 2.5	
	W	27	6:16 5.5	13:27 0.6	20:20 3.7	. . . . . .	
	Th	28	0:55 2.6	7:10 5.7	14:17 0.0	21:22 4.0	
N	F	29	1:56 2.7	8:04 5.9	15:10 —0.5	22:13 4.4	
	S	30	2:51 2.7	9:02 6.1	15:56 —0.9	23:00 4.7	
	S	31	3:43 2.5	9:51 6.1	16:42 —1.0	23:43 5.0	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○ P	M	1	4:35 2.4	10:42 6.2	17:27 —1.0	. . . . . .	
	Tu	2	0:26 5.2	5:27 2.3	11:35 6.0	18:09 —0.7	
	W	3	1:04 5.8	6:19 2.0	12:28 5.7	18:54 —0.3	
E	Th	4	1:45 5.4	7:13 1.8	13:23 5.2	19:40 0.2	
	F	5	2:27 5.6	8:17 1.7	14:27 4.8	20:26 0.9	
	S	6	3:08 5.5	9:20 1.6	15:34 4.4	21:12 1.5	
	S	7	3:58 5.5	10:27 1.4	16:46 3.9	22:08 2.1	
☾	M	8	4:50 5.5	11:37 1.2	18:12 3.8	23:08 2.5	
	Tu	9	5:47 5.5	12:50 0.7	19:32 3.7	. . . . . .	
	W	10	0:14 2.9	6:46 5.4	13:49 0.4	20:44 3.8	
S	Th	11	1:17 3.0	7:41 5.5	14:40 0.1	21:42 4.3	
	F	12	2:16 3.1	8:34 5.5	15:27 0.0	22:28 4.4	
	S	13	3:08 3.0	9:22 5.5	16:08 —0.1	23:07 4.5	
	S	14	3:52 3.0	10:07 5.4	16:40 —0.1	23:43 4.7	
A	M	15	4:32 2.8	10:44 5.3	17:12 0.1	. . . . . .	
●	Tu	16	0:14 4.8	5:10 2.6	11:18 5.1	17:44 0.2	
	W	17	0:45 4.8	5:46 2.5	11:53 5.0	18:12 0.5	
	Th	18	1:08 4.8	6:23 2.2	12:30 4.7	18:46 0.7	
E	F	19	1:30 4.9	7:05 2.0	13:10 4.5	19:18 1.1	
	S	20	1:56 5.0	7:51 1.8	13:50 4.3	19:53 1.5	
	S	21	2:24 5.0	8:38 1.5	14:46 4.1	20:32 1.9	
	M	22	3:00 5.1	9:32 1.4	15:50 3.9	21:21 2.2	
	Tu	23	3:47 5.1	10:40 1.1	17:10 3.6	22:17 2.6	
☽	W	24	4:36 5.2	11:47 0.7	18:38 3.6	23:24 2.7	
	Th	25	5:36 5.3	12:42 0.4	19:54 3.9	. . . . . .	
N	F	26	0:36 2.8	6:43 5.5	13:50 0.0	20:53 4.2	
	S	27	1:43 2.8	7:47 5.7	14:43 —0.2	21:47 4.5	
	S	28	2:40 2.6	8:48 5.8	15:32 —0.4	22:27 4.9	
	M	29	3:36 2.1	9:47 6.0	16:18 —0.5	23:10 5.2	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	4:26 1.8	10:42 5.9	17:02 —0.3	23:48 5.4	
	W	2	5:16 1.4	11:35 5.8	17:47 0.0	. . . . . .	
E	Th	3	0:24 5.6	6:06 1.1	12:28 5.5	18:31 0.4	
	F	4	1:08 5.6	7:00 0.9	13:22 5.2	19:13 1.0	
	S	5	1:43 5.6	7:52 0.9	14:22 4.8	19:58 1.5	
	S	6	2:27 5.5	8:52 0.9	15:27 4.4	20:45 2.2	
	M	7	3:15 5.4	9:57 0.8	16:37 4.1	21:37 2.6	
☾	Tu	8	4:05 5.2	11:03 0.8	17:55 4.0	22:42 3.0	
S	W	9	5:06 5.1	12:12 0.7	19:09 4.0	23:52 3.1	
	Th	10	6:12 5.0	13:10 0.6	20:17 4.2	. . . . . .	
	F	11	1:06 3.1	7:18 5.0	14:08 0.5	21:07 4.4	
	S	12	2:05 3.0	8:13 5.0	14:47 0.3	21:50 4.6	
A	S	13	2:55 2.8	9:08 5.0	15:32 0.4	22:28 4.7	
	M	14	3:38 2.5	9:50 5.0	16:06 0.5	23:00 4.9	
	Tu	15	4:17 2.2	10:30 5.0	16:38 0.6	23:27 5.0	
●	W	16	4:52 2.0	11:09 4.9	17:11 0.8	23:51 5.0	
E	Th	17	5:26 1.6	11:45 4.9	17:42 1.2	. . . . . .	
	F	18	0:14 5.0	6:02 1.4	12:24 4.7	18:12 1.3	
	S	19	0:36 5.0	6:42 1.1	13:05 4.7	18:44 1.6	
	S	20	1:01 5.0	7:22 0.9	13:52 4.5	19:22 2.0	
	M	21	1:34 5.1	8:07 0.7	14:47 4.3	20:04 2.3	
	Tu	22	2:12 5.2	9:02 0.6	15:50 4.0	20:53 2.7	
	W	23	3:02 5.2	10:05 0.5	17:02 3.9	21:58 2.9	
N ☽	Th	24	4:08 5.1	11:13 0.5	18:17 4.0	23:12 3.0	
	F	25	5:07 5.1	12:17 0.4	19:22 4.3	. . . . . .	
	S	26	0:27 2.9	6:22 5.1	13:18 0.2	20:20 4.6	
	S	27	1:38 2.6	7:37 5.3	14:13 0.2	21:07 5.0	
	M	28	2:34 2.0	8:45 5.4	15:02 0.2	21:50 5.3	
P	Tu	29	3:27 1.5	9:45 5.5	15:54 0.3	22:30 5.5	
E	W	30	4:17 1.0	10:41 5.6	16:39 0.6	23:06 5.7	
○	Th	31	5:06 0.5	11:35 5.5	17:20 0.8	23:46 5.7	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	5:58	12:30	18:00	. . .		S	1	6:25	13:23	18:12	. . .		W	1	0:38	7:37	14:54	19:16
			0.3	5.4	1.3	. . .				—0.4	4.9	2.6	. . .				5.2	—0.4	4.7	3.2
	S	2	0:22	6:42	13:26	18:42		M	2	0:25	7:15	14:17	18:57		Th	2	1:24	8:19	15:42	20:22
			5.7	0.2	5.0	1.7				5.7	—0.4	4.7	3.0				4.9	0.0	4.7	3.2
	S	3	1:04	7:31	14:22	19:26	S	Tu	3	1:07	8:02	15:12	19:46		F	3	2:11	9:00	16:27	21:30
			5.6	0.2	4.8	2.2				5.4	—0.2	4.6	3.2				4.6	0.8	4.7	3.2
	M	4	1:46	8:27	15:22	20:12		W	4	1:52	8:52	16:07	20:40		S	4	3:08	9:45	17:09	22:42
			5.5	0.2	4.4	2.7				5.0	0.0	4.6	3.2				4.1	0.6	4.7	3.1
	Tu	5	2:30	9:25	16:27	21:12		Th	5	2:45	9:45	17:05	22:02	A	S	5	4:05	10:28	17:48	23:50
			5.3	0.4	4.3	3.1				4.7	0.4	4.6	3.2	☾			3.8	1.2	4.9	2.9
S	W	6	3:21	10:25	17:33	22:17		F	6	3:42	10:35	18:00	23:20		M	6	5:12	11:18	18:28	. . .
			5.0	0.6	4.2	3.2				4.3	0.7	4.6	3.2				3.5	1.5	5.1	. . .
☾	Th	7	4:22	11:27	18:38	23:42	☾	S	7	4:48	11:29	18:40	. . .	E	Tu	7	0:46	6:27	12:10	19:07
			4.7	0.7	4.2	3.2				4.0	1.0	4.6	. . .				2.4	3.4	1.7	5.1
	F	8	5:29	12:23	19:37	. . .	A	S	8	0:30	6:05	12:17	19:26		W	8	1:32	7:37	13:00	19:43
			4.5	0.7	4.4	. . .				3.0	3.9	1.3	4.9				1.8	3.6	2.0	5.2
	S	9	0:53	6:37	13:15	20:23		M	9	1:25	7:12	13:10	20:05		Th	9	2:14	8:44	13:42	20:16
			3.1	4.4	0.8	4.7				2.7	3.8	1.5	5.0				1.2	3.8	2.2	5.4
A	S	10	1:51	7:42	14:01	21:02	E	Tu	10	2:10	8:14	13:54	20:40		F	10	2:56	9:41	14:30	20:50
			2.8	4.4	0.9	4.9				2.1	3.9	1.7	5.1				0.6	4.0	2.4	5.6
	M	11	2:40	8:40	14:46	21:37		W	11	2:52	9:07	14:35	21:10		S	11	3:37	10:33	15:14	21:24
			2.4	4.5	1.1	5.0				1.5	4.2	1.9	5.2				0.0	4.2	2.6	5.8
	Tu	12	3:18	9:30	15:23	22:07		Th	12	3:29	10:00	15.12	21:40		S	12	4:18	11:22	15:55	22:02
			2.0	4.6	1.2	5.1				1.0	4.4	2.0	5.2				—0.5	4.4	2.8	6.0
E	W	13	3:54	10:16	15:58	22:30		F	13	4:02	10:47	15:50	22:06	●	M	13	5:00	12:10	16:40	22:44
			1.5	4.7	1.3	5.1				0.5	4.5	2.2	5.5				—0.8	4.6	2.8	6.0
	Th	14	4:30	10:58	16:30	22:58		S	14	4:38	11:34	16:27	22:39	N	Tu	14	5:44	12:57	17:29	23:28
			1.2	4.8	1.5	5.1				0.0	4.4	2.3	5.5				—1.0	4.6	2.8	6.0
●	F	15	5:06	11:40	17:03	23:22	●	S	15	5:20	12:21	17:06	23:10		W	15	6:29	13:42	18:20	. . .
			0.8	4.8	1.7	5.2				—0.3	4.6	2.5	5.6				—1.0	4.8	2.9	. . .
	S	16	5:38	12:24	17:38	23:47		M	16	6:03	13:10	17:47	23:48		Th	16	0:18	7:15	14:27	19:15
			0.5	4.7	2.0	5.2				—0.5	4.6	2.7	5.7				5.7	—0.8	4.9	2.9
	S	17	6:18	13:10	18:14	. . .	N	Tu	17	6:45	13:57	18:32	. . .	P	F	17	1:12	8:00	15:12	20:18
			0.2	4.7	2.3	. . .				—0.6	4.6	2.9	. . .				5.5	—0.6	5.0	2.9
	M	18	0:18	7:02	14:00	18:54		W	18	0:36	7:33	14:47	19:27		S	18	2:10	8:53	15:58	21:30
			5.4	0.1	4.3	2.7				5.6	—0.6	4.7	3.0				5.0	—0.1	5.2	2.6
	Tu	19	0:55	7:47	14:52	19:41		Th	19	1:20	8:20	15:38	20:29		S	19	3:17	9:42	16:47	22:46
			5.3	0.0	4.3	2.8				5.4	—0.4	4.7	3.1				4.6	0.4	5.4	2.3
N	W	20	1:38	8:40	15:50	20:37		F	20	2:16	9:16	16:30	21:42	☽ E	M	20	4:37	10:40	17:35	23:54
			5.3	0.0	4.3	3.1				5.1	—0.1	4.7	3.1				4.1	1.0	5.5	1.8
	Th	21	2:32	9:38	16:52	21:50		S	21	3:22	10:12	17:22	23:00		Tu	21	5:57	11:40	18:25	. . .
			5.2	0.1	4.3	3.1				4.8	0.2	4.9	2.7				4.0	1.6	5.6	. . .
☽	F	22	3:35	10:40	17:58	23:09	☽ P	S	22	4:40	11:12	18:13	. . .		W	22	0:58	7:20	12:36	19:14
			5.0	0.3	4.4	3.1				4.6	0.7	5.2	. . .				1.3	4.0	2.0	5.6
	S	23	4:51	11:44	18:48	. . .		M	23	0:14	6:07	12:12	19:02		Th	23	1:58	8:35	13:32	20:03
			4.7	0.4	4.6	. . .				2.2	4.2	1.1	5.4				0.6	4.0	2.3	5.9
	S	24	0:24	6:10	12:43	19:40	E	Tu	24	1:20	7:26	13:11	19:50		F	24	2:54	9:40	14:22	20:49
			2.5	4.6	0.6	5.0				1.5	4.3	1.4	5.6				0.0	4.2	2.6	6.0
	M	25	1:29	7:28	13:45	20:27		W	25	2:12	8:40	14:00	20:35		S	25	3:42	10:40	15:10	21:33
			2.0	4.7	0.8	5.4				1.0	4.5	1.6	5.8				—0.4	4.5	2.9	6.0
P E	Tu	26	2:27	8:40	14:37	21:10		Th	26	3:04	9:47	14:48	21:20		S	26	4:28	11:30	15:56	22:16
			1.4	4.9	1.0	5.5				0.3	4.6	2.1	5.9				—0.7	4.6	2.9	5.9
	W	27	3:18	9:43	15:22	21:51		F	27	3:53	10:44	15:35	22:00	S ○	M	27	5:11	12:18	16:42	22:57
			0.8	5.1	1.2	5.7				—0.2	4.7	2.4	6.0				—0.8	4.6	2.9	5.8
	Th	28	4:04	10:43	16:07	22:30		S	28	4:41	11:38	16:20	22:40		Tu	28	5:52	13:00	17:22	23:36
			0.3	5.2	1.6	5.9				—0.6	4.8	2.7	6.0				—0.8	4.7	3.1	5.5
○	F	29	4:50	11:40	16:48	23:07	○	S	29	5:25	12:28	17:00	23:18		W	29	6:30	13:44	18:12	. . .
			—0.1	5.2	1.8	5.8				—0.8	4.7	3.0	5:8				—0.6	4.8	3.2	. . .
	S	30	5:38	12:32	17:30	23.47	S	M	30	6:11	13:19	17:43	. . .		Th	30	0:15	7:07	14:25	19:02
			—0.3	5.0	2.2	5.8				—0.8	4.7	3.2	. . .				5.2	—0.3	4.8	3.2
								Tu	31	0:00	6:55	14:07	18:33							
										5.6	—0.7	4.7	3.2							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:59	7:44	15:03	19:52	
			4.7	0.1	4.8	3.2	
A	S	2	1:40	8:18	15:38	20:46	
			4.3	0.5	4.8	3.2	
	S	3	2:27	8:53	16:13	21:50	
			4.0	0.9	4.9	3.0	
E	M	4	3:22	9:33	16:49	22:58	
			3.8	1.3	5.0	2.7	
☾	Tu	5	4:26	10:22	17:26	23:50	
			3.5	1.6	5.0	2.1	
	W	6	5:42	11:12	18:02	. . .	
			3.4	1.9	5.2	. . .	
	Th	7	0:45	7:00	12:05	18:44	
			1.6	3.4	2.2	5.3	
	F	8	1:38	8:15	13:00	19:25	
			0.9	3.5	2.4	5.6	
	S	9	2:27	9:19	13:52	20:10	
			0.3	3.8	2.6	5.8	
	S	10	3:12	10:15	14:45	20:55	
			—0.2	4.1	2.7	6.0	
N	M	11	3:57	11:02	15:33	21:40	
			—0.7	4.4	2.7	6.0	
●	Tu	12	4:42	11:48	16:24	22:30	
			—1.2	4.6	2.7	6.1	
	W	13	5:25	12:33	17:13	23:19	
			—1.4	4.8	2.7	6.0	
P	Th	14	6:09	13:13	18:08	. . .	
			—1.2	4.9	2.6	. . .	
	F	15	0:10	6:54	13:56	19:02	
			5.7	—0.7	5.2	2.4	
	S	16	1:09	7:40	14:37	20:02	
			5.3	—0.3	5.3	2.2	
E	S	17	2:08	8:26	15:22	21:12	
			4.9	0.3	5.4	2.0	
	M	18	3:14	9:14	16:06	22:20	
			4.4	0.9	5.5	1.8	
☽	Tu	19	4:27	10:10	16:56	23:29	
			4.1	1.5	5.5	1.4	
	W	20	5:48	11:10	17:47	. . .	
			3.9	2.0	5.6	. . .	
	Th	21	0:38	7:10	12:07	18:42	
			0.9	3.8	2.5	5.6	
	F	22	1:41	8:27	13:07	19:36	
			0.4	4.0	2.7	5.7	
	S	23	2:37	9:31	14:01	20:27	
			0.0	4.3	2.9	5.9	
S	S	24	3:28	10:26	14:55	21:18	
			—0.4	4.3	3.0	5.9	
	M	25	4:12	11:12	15:45	22:00	
			—0.6	4.5	3.1	5.7	
	Tu	26	4:50	11:57	16:30	22:44	
			—0.6	4.6	3.1	5.6	
○	W	27	5:28	12:34	17:10	23:22	
			—0.5	4.7	3.1	5.3	
	Th	28	6:02	13:10	17:56	. . .	
			—0.3	4.7	3.0	. . .	
	F	29	0:00	6:35	13:44	18:37	
			5.0	0.0	4.8	2.8	
A	S	30	0:39	7:07	14:14	19:20	
			4.6	0.4	4.8	2.8	
	S	31	1:19	7:37	14:41	20:09	
			4.2	0.7	4.9	2.8	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	2:04	8:12	15:13	21:02	
			4.0	1.2	4.9	2.5	
	Tu	2	2:52	8:50	15:42	21:54	
			3.8	1.6	5.0	2.1	
	W	3	3:49	9:34	16:20	22:57	
			3.5	2.0	5.0	1.9	
☾	Th	4	5:02	10:25	17:03	. . .	
			3.4	2.2	5.1	. . .	
	F	5	0:00	6:27	11:22	17:52	
			1.3	3.3	2.6	5.3	
	S	6	1:00	7:50	12:27	18:46	
			0.8	3.5	2.7	5.5	
	S	7	1:55	8:55	13:28	19:40	
			0.3	3.7	2.7	5.6	
N	M	8	2:46	9:47	14:27	20:36	
			—0.2	4.1	2.7	5.8	
	Tu	9	3:32	10:35	15:22	21:30	
			—0.6	4.5	2.6	6.0	
	W	10	4:17	11:16	16:11	22:21	
			—0.8	4.8	2.4	6.0	
●	Th	11	5:02	11:57	17:02	23:15	
			—0.8	5.0	2.2	5.9	
P	F	12	5:44	12:36	17:52	. . .	
			—0.6	5.2	1.8	. . .	
	S	13	0:07	6:29	13:15	18:47	
			5.6	—0.2	5.4	1.5	
E	S	14	1:02	7:14	13:55	19:46	
			5.3	0.3	5.5	1.4	
	M	15	2:00	8:02	14:37	20:47	
			4.9	0.9	5.5	1.3	
	Tu	16	3:07	8:50	15:25	21:52	
			4.5	1.6	5.5	1.1	
☽	W	17	4:21	9:43	16:18	23:02	
			4.2	2.2	5.4	0.9	
	Th	18	5:38	10:40	17:14	. . .	
			3.8	2.6	5.3	. . .	
	F	19	0:13	6:59	11:48	18:12	
			0.6	3.9	2.8	5.4	
S	S	20	1:17	8:18	12:54	19:13	
			0.3	4.1	2.9	5.4	
	S	21	2:13	9:13	13:56	20:10	
			0.1	4.3	3.1	5.5	
	M	22	3:02	10:02	14:50	21:04	
			—0.1	4.5	3.0	5.5	
	Tu	23	3:45	10:45	15:37	21:50	
			—0.1	4.7	2.7	5.4	
	W	24	4:22	11:22	16:18	22:33	
			—0.1	4.8	2.7	5.3	
○	Th	25	4:57	11:57	17:00	23:12	
			0.0	4.8	2.5	5.0	
A	F	26	5:30	12:27	17:36	23:50	
			0.3	4.9	2.3	4.8	
	S	27	5:59	12:53	18:14	. . .	
			0.6	4.9	2.2	. . .	
E	S	28	0:24	6:32	13:17	18:52	
			4.5	1.0	4.9	2.0	
	M	29	1:00	7:02	13:42	19:36	
			4.3	1.4	4.9	1.8	
	Tu	30	1:43	7:35	14:10	20:20	
			4.2	1.7	4.8	1.5	
	W	31	2:32	8:12	14:40	21:11	
			4.0	2.1	4.8	1.4	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	3:34	8:57	15:20	22:13	
			3.8	2.4	4.9	1.1	
☾	F	2	4:47	9:52	16:10	23:18	
			3.6	2.6	5.0	0.9	
	S	3	6:07	11:00	17:09	. . .	
			3.6	2.8	5.1	. . .	
N	S	4	0:22	7:22	12:10	18:15	
			0.6	3.8	2.7	5.3	
	M	5	1:22	8:24	13:18	19:20	
			0.2	4.1	2.7	5.4	
	Tu	6	2:15	9:14	14:17	20:22	
			0.0	4.5	2.5	5.5	
	W	7	3:04	9:57	15:12	21:22	
			—0.2	4.9	2.2	5.7	
	Th	8	3:50	10:37	16:00	22:19	
			—0.3	5.2	1.7	5.7	
P ●	F	9	4:36	11:15	16:50	23:12	
			—0.1	5.4	1.3	5.6	
E	S	10	5:22	11:53	17:41	. . .	
			0.1	5.6	0.8	. . .	
	S	11	0:07	6:05	12:32	18:33	
			5.5	0.5	5.5	0.7	
	M	12	1:02	6:46	13:12	19:22	
			5.3	1.0	5.5	0.5	
	Tu	13	2:00	7:32	13:56	20:20	
			5.0	1.6	5.4	0.5	
	W	14	3:05	8:20	14:42	21:23	
			4.5	2.2	5.3	0.5	
	Th	15	4:15	9:15	15:33	22:32	
			4.3	2.6	5.1	0.5	
☽	F	16	5:30	10:22	16:37	23:42	
			4.1	3.0	5.0	0.5	
S	S	17	6:43	11:36	17:40	. . .	
			4.1	3.1	4.8	. . .	
	S	18	0:43	7:48	12:49	18:48	
			0.4	4.4	3.1	4.8	
	M	19	1:40	8:42	13:50	19:51	
			0.3	4.6	2.9	4.8	
	Tu	20	2:28	9:27	14:42	20:47	
			0.3	4.8	2.6	4.8	
	W	21	3:07	10:06	15:27	21:35	
			0.4	4.9	2.3	4.9	
A	Th	22	3:46	10:40	16:05	22:20	
			0.6	5.0	2.0	4.8	
	F	23	4:22	11:06	16:43	23:00	
			0.8	5.1	1.7	4.8	
○ E	S	24	4:53	11:34	17:17	23:40	
			1.0	5.0	1.5	4.7	
	S	25	5:22	11:57	17:52	. . .	
			1.3	4.9	1.3	. . .	
	M	26	0:15	5:44	12:18	18:26	
			4.6	1.6	4.9	1.1	
	Tu	27	0:58	6:23	12:42	19:03	
			4.5	1.9	5.0	0.9	
	W	28	1:42	7:00	13:10	19:47	
			4.3	2.2	4.9	0.7	
	Th	29	2:32	7:38	13:47	20:38	
			4.1	2.4	5.0	0.7	
	F	30	3:30	8:28	14:34	21:37	
			3.9	2.7	5.0	0.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	4:40	9:30	15:32	22:40			Tu	1	6:17	11:54	17:38	. . .		E	Th	1	6:30	12:47	18:52	. . .	
			3.9	2.9	5.0	0.6					4.7	2.6	4.4	. . .					5.3	1.7	4.1	. . .	
☾	S	2	5:48	10:47	16:38	23:46			W	2	0:12	7:09	13:02	18:56		P	F	2	0:37	7:15	13:42	20:08	
			4.0	3.0	4.8	0.5					0.8	5.0	2.0	4.4					1.5	5.5	1.0	4.4	
	M	3	6:52	12:04	17:51	. . .			Th	3	1:13	7:54	14:00	20:10			S	3	1:32	8:02	14:37	21:18	
			4.2	2.9	4.8	. . .					1.1	5.3	1.4	4.6					1.8	5.8	0.3	4.5	
	Tu	4	0:47	7:46	13:10	19:05		E	F	4	2:05	8:38	14:51	21:16			S	4	2:23	8:47	15:30	22:10	
			0.4	4.6	2.6	4.9					1.1	5.4	0.8	4.9					2.1	6.0	—0.2	4.6	
	W	5	1:42	8:34	14:10	20:15		P	S	5	2:52	9:19	15:37	22:19			M	5	3:09	9:30	16:16	23:14	
			0.4	4.9	2.0	5.1					1.5	5.7	0.2	5.0					2.3	6.1	—0.7	4.7	
	Th	6	2:34	9:17	15:00	21:18			S	6	3:37	10:00	16:26	23:15		●	Tu	6	3:53	10:13	17.02	. . .	
			0.4	5.3	1.4	5.3					1.7	5.9	—0.3	5.1					2.6	6.2	—0.9	. . .	
P	F	7	3:26	9:56	15:52	22:16		●	M	7	4:19	10:39	17:13	. . .			W	7	0:06	4:40	10:55	17:47	
			0.6	5.4	0.8	5.4					2.0	6.0	—0.6	. . .					4.7	2.9	6.0	—1.1	
E	S	8	4:09	10:35	16:40	23:22			Tu	8	0:10	5:00	11:20	18:00		S	Th	8	0:56	5:24	11:35	18:31	
●			0.8	5.6	0.4	5.4					5.0	2.3	6.0	—0.7					4.8	3.0	5.8	—1.0	
	S	9	4:52	11:14	17:27	. . .			W	9	1:00	5:48	12:00	18:49			F	9	1:43	6:12	12:17	19:18	
			1.1	5.6	0.0	. . .					4.9	2.7	5.8	—0.7					4.8	3.0	5.5	—0.7	
	M	10	0:07	5:34	11:52	18:14		S	Th	10	1:57	6:34	12:43	19:39			S	10	2:30	7:02	13:05	19:57	
			5.4	1.5	5.7	—0.1					4.8	3.0	5.5	—0.5					4.8	3.1	5.2	—0.1	
	Tu	11	1:05	6:17	12:32	19:05			F	11	2:50	7:24	13:30	20:28			S	11	3:18	8:00	13:56	20:42	
			5.1	1.9	5.7	—0.2					4.7	3.1	5.2	—0.2					4.8	3.1	4.6	0.2	
	W	12	2:00	7:02	13:15	20:00			S	12	3:46	8:25	14:24	21:20			M	12	4:06	9:10	14:46	21:24	
			4.8	2.4	5.5	—0.1					4.7	3.2	4.8	0.1					4.9	3.1	4.2	0.6	
	Th	13	3:00	7:50	14:02	20:58			S	13	4:45	9:37	15:24	22:14			Tu	13	4:50	10:25	15:47	22:07	
			4.6	2.9	5.3	0.0					4.7	3.2	4.4	0.5					5.0	3.0	3.7	1.1	
S	F	14	4:05	8:50	14:57	21:59		☽	M	14	5:38	11:02	16:35	23:06		☽	W	14	5:30	11:37	17:00	22:56	
			4.5	3.1	5.0	0.2					4.7	3.1	4.0	0.9		A			5.0	2.8	3.3	1.6	
☽	S	15	5:11	10:00	15:59	23:00			Tu	15	6:27	12:17	17:47	23:58		E	Th	15	6:12	12:35	18:12	23:50	
			4.5	3.2	4.6	0.4					4.8	2.9	3.9	1.2					5.2	2.4	3.2	1.9	
	S	16	6:15	11:20	17:17	. . .		A	W	16	7:09	13:15	19:00	. . .			F	16	6:51	13:27	19:30	. . .	
			4.5	3.2	4.5	. . .					5.0	2.5	3.8	. . .					5.2	1.9	3.5	. . .	
	M	17	0:00	7:15	12:40	18:18			Th	17	0:52	7:51	14:05	20:05			S	17	0:38	7:30	14:07	20:31	
			0.6	4.6	3.1	4.3					1.6	5.2	2.0	3.8					2.2	5.3	1.5	3.5	
	Tu	18	0:52	8:02	13:38	19:27		E	F	18	1:36	8:25	14:47	20:59			S	18	1:25	8:05	14:47	21:31	
			0.8	4.9	2.7	4.2					1.7	5.1	1.6	4.0					2.4	5.3	0.8	3.7	
	W	19	1:42	8:41	14:28	20:26			S	19	2:16	9:00	15:17	21:52			M	19	2:09	8:37	15:27	22:22	
			1.0	5.0	2.2	4.2					2.1	5.3	1.0	4.1					2.6	5.5	0.2	4.0	
A	Th	20	2:27	9:18	15:09	21:19			S	20	2:53	9:28	15:52	22:37			Tu	20	2:52	9:12	16:06	23:09	
			1.2	5.2	1.9	4.4					2.2	5.4	0.6	4.2					2.7	5.7	—0.3	4.0	
E	F	21	3:05	9:48	15:47	22:06			M	21	3:30	9:53	16:28	23:28			W	21	3:37	9:48	16:45	23:52	
			1.3	5.1	1.5	4.6					2.4	5.5	0.2	4.2					2.7	5.8	—0.6	4.4	
	S	22	3:38	10:17	16:21	22:50		○	Tu	22	4:07	10:20	17:05	. . .		○	Th	22	4:21	10:25	17:27	. . .	
			1.5	5.1	1.1	4.6					2.5	5.6	—0.2	. . .		N			2.8	5.9	—0.8	. . .	
	S	23	4:13	10:42	16:53	23:32			W	23	0:08	4:42	10:50	17:43			F	23	0:37	5:05	11:05	18:08	
			1.8	5.1	0.8	4.6					4.3	2.6	5.6	—0.5					4.5	2.9	5.8	—0.9	
○	M	24	4:45	11:02	17:25	. . .			Th	24	0:52	5:24	11:24	18:25			S	24	1:20	5:52	11:53	18:52	
			2.0	5.2	0.5	. . .					4.5	2.7	5.6	—0.6					4.6	3.0	5.7	—0.8	
	Tu	25	0:14	5:17	11:28	18:02		N	F	25	1:38	6:05	12:07	19:09			S	25	2:00	6:44	12:45	19:35	
			4.5	2.2	5.2	0.2					4.5	2.8	5.9	—0.6					4.7	2.9	5.5	—0.6	
	W	26	0:56	5:50	11:55	18:42			S	26	2:25	6:56	12:52	19:55			M	26	2:42	7:43	13:40	20:21	
			4.4	2.5	5.3	0.1					4.5	3.0	5.4	—0.4					4.9	2.8	5.1	—0.1	
	Th	27	1:44	6:28	12:30	19:27			S	27	3:12	7:54	13:46	20:46		P	Tu	27	3:25	8:49	14:42	21:10	
			4.2	2.7	5.2	0.0					4.6	3.1	5.2	—0.2					5.0	2.5	4.7	0.4	
	F	28	2:32	7:15	13:10	20:13			M	28	4:00	9:02	14:46	21:40			W	28	4:12	10:02	15:55	22:04	
			4.2	3.0	5.2	0.0					4.7	3.1	4.8	0.3					5.3	2.3	4.2	1.0	
N	S	29	3:27	8:08	14:00	21:10		☾	Tu	29	4:50	10:22	16:02	22:35		E	Th	29	5:00	11:12	17:18	23:07	
			4.2	3.1	5.0	0.2					4.9	2.7	4.4	0.7		☾			5.4	1.8	3.9	1.6	
	S	30	4:26	9:16	15:03	22:08			W	30	5:40	11:38	17:30	23:37			F	30	5:50	12:22	18:42	. . .	
			4.2	3.1	4.8	0.3					5.2	2.3	4.1	1.1					5.4	1.3	3.9	. . .	
☾	M	31	5:24	10:36	16:16	23:19											S	31	0:02	6:41	13:28	20:05	
			4.4	3.1	4.6	0.6													2.0	5.7	0.7	4.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:57 3.1	11:00 9.1	17:55 —1.2	. . .
N ○	S	2	0:16 6.7	5:54 2.9	11:50 9.3	18:42 —1.6
	S	3	1:02 7.6	6:42 2.7	12:37 9.4	19:27 —1.7
P	M	4	1:50 7.7	7:35 2.6	13:24 9.3	20:12 —1.6
	Tu	5	2:33 8.2	8:26 2.4	14:12 9.0	20:57 —1.3
	W	6	3:18 8.2	9:17 2.3	15:02 8.6	21:44 —0.7
	Th	7	4:04 8.3	10:11 2.1	16:00 7.9	22:30 0.0
E	F	8	4:54 8.3	11:14 2.0	16:59 7.2	23:20 0.7
☾	S	9	5:47 8.3	12:20 1.8	18:07 6.6	. . .
	S	10	0:17 1.4	6:44 8.1	13:28 1.5	19:25 6.2
	M	11	1:18 2.1	7:42 8.2	14:37 1.1	20:40 6.0
	Tu	12	2:24 2.6	8:41 8.3	15:41 0.6	21:50 6.2
	W	13	3:32 2.9	9:37 8.4	16:38 0.1	22:50 6.3
	Th	14	4:33 3.0	10:27 8.4	17:29 —0.4	23:42 6.7
S	F	15	5:26 3.0	11:14 8.6	18:14 —0.7	. . .
	S	16	0:28 7.0	6:16 3.0	11:57 8.5	18:55 —0.7
●	S	17	1:07 7.1	7:00 3.0	12:37 8.4	19:29 —0.6
	M	18	1:42 7.2	7:37 3.1	13:12 7.6	20:03 —0.3
A	Tu	19	2:15 7.2	8:09 3.1	13:46 7.8	20:30 0.1
	W	20	2:46 7.2	8:36 3.0	14:17 7.6	20:54 0.4
	Th	21	3:12 7.3	9:05 2.9	14:50 7.2	21:17 0.8
E	F	22	3:42 7.4	9:40 2.8	15:30 6.9	21:45 1.2
	S	23	4:16 7.6	10:22 2.5	16:15 6.5	22:20 1.7
	S	24	4:54 7.6	11:14 2.3	17:09 6.0	23:00 2.1
☽	M	25	5:38 7.6	12:15 2.0	18:17 5.6	23:53 2.7
	Tu	26	6:32 7.7	13:27 1.7	19:40 5.4	. . .
	W	27	1:00 3.2	7:34 7.8	14:38 1.1	20:59 5.6
	Th	28	2:12 3.4	8:39 8.0	15:45 0.4	22:07 6.2
N	F	29	3:32 3.4	9:42 8.4	16:43 —0.4	23:05 6.6
	S	30	4:40 3.2	10:40 8.8	17:37 —1.0	23:55 7.2
	S	31	5:40 2.8	11:36 9.1	18:23 —1.3	. . .

FEBRUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○ P	M	1	0:40 7.8	6:32 2.3	12:27 9.3	19:10 —1.4
	Tu	2	1:26 8.2	7:20 2.0	13:15 9.3	19:53 —1.2
	W	3	2:08 8.4	8:08 1.6	14:05 9.0	20:37 —0.9
E	Th	4	2:51 8.6	8:58 1.3	14:52 8.5	21:20 —0.3
	F	5	3:33 8.7	9:52 1.2	15:48 7.9	22:14 0.4
	S	6	4:18 8.6	10:48 1.1	16:41 7.3	22:50 1.2
	S	7	5:08 8.3	11:47 1.2	17:45 6.5	23:43 2.0
☾	M	8	6:02 8.1	12:55 1.2	19:00 6.0	. . .
	Tu	9	0:46 2.6	7:02 7.9	14:02 1.0	20:16 5.8
	W	10	1:57 3.1	8:06 7.8	15:11 0.8	21:28 5.8
S	Th	11	3:09 3.2	9:09 7.8	16:12 0.4	22.30 6.3
	F	12	4:12 3.2	10:05 7.9	17:03 0.1	23:20 6.6
	S	13	5:11 3.1	10:54 8.0	17:50 —0.1	. . .
	S	14	0:03 7.0	6:00 2.8	11:43 8.1	18:28 —0.3
A	M	15	0:40 7.2	6:40 2.6	12:21 8.1	19:03 —0.2
●	Tu	16	1:12 7.4	7:14 2.4	12:59 8.0	19:35 0.2
	W	17	1:40 7.5	7:45 2.3	13:31 7.8	20:00 0.5
	Th	18	2:10 7.6	8:13 2.1	14:13 7.6	20:26 0.8
E	F	19	2:37 7.8	8:40 1.9	14:37 7.4	20:47 1.2
	S	20	3:04 7.9	9:13 1.7	15:13 7.1	21:15 1.6
	S	21	3:34 7.8	9:52 1.5	15:56 6.7	21:48 2.0
	M	22	4:10 7.8	10:41 1.4	16:47 6.3	22:30 2.5
	Tu	23	4:55 7.8	11:42 1.4	17:50 5.7	23:22 3.0
☽	W	24	5:48 7.6	12:48 1.3	19:04 5.5	. . .
	Th	25	0:30 3.5	6:58 7.5	14:04 1.0	20:32 5.8
N	F	26	1:55 3.6	8:12 7.7	15:15 0.5	21:44 6.3
	S	27	3:19 3.5	9:22 8.0	16:17 0.0	22:40 6.8
	S	28	4:30 3.1	10:26 8.4	17:12 —0.4	23:30 7.5
	M	29	5:27 2.2	11:23 8.8	18:02 —0.7	. . .

MARCH.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	0:15 8.1	6:16 1.6	12:16 9.0	18:47 —0.7
	W	2	1:00 8.6	7:05 1.0	13:06 9.1	19:30 —0.5
E	Th	3	1:40 8.9	7:51 0.6	13:52 8.8	20:11 —0.1
	F	4	2:20 9.0	8:41 0.3	14:42 8.5	20:52 0.5
	S	5	2:59 8.8	9:28 0.3	15:28 7.9	21:35 1.2
	S	6	3:42 8.6	10:21 0.5	16:22 7.0	22:20 2.0
	M	7	4:27 8.3	11:17 0.7	17:24 6.4	23:12 2.7
☾	Tu	8	5:18 7.9	12:20 0.9	18:35 5.9	. . .
S	W	9	0:17 3.2	6:20 7.4	13:27 1.0	19:45 5.9
	Th	10	1:35 3.5	7:27 7.1	14:32 1.0	20:58 6.0
	F	11	2:45 3.5	8:36 7.0	15:35 0.9	21:57 6.3
	S	12	3:55 3.3	9:37 7.1	16:28 0.7	22:47 6.8
A	S	13	4:50 2.9	10:32 7.4	17:16 0.5	23:27 7.2
	M	14	5:35 2.4	11:21 7.6	17:54 0.5	. . .
	Tu	15	0:02 7.5	6:14 2.0	12:00 7.8	18:30 0.7
●	W	16	0:34 7.8	6:48 1.7	12:48 7.8	19:00 0.8
E	Th	17	1:04 7.9	7:17 1.4	13:14 7.8	19:27 1.1
	F	18	1:22 7.9	7:50 1.1	13:51 7.7	19:56 1.4
	S	19	2:00 8.0	8:20 0.9	14:26 7.4	20:20 1.8
	S	20	2:27 8.1	8:54 0.7	15:03 7.2	20:51 2.2
	M	21	3:00 8.1	9:30 0.7	15:46 6.8	21:27 2.6
	Tu	22	3:38 8.0	10:20 0.7	16:35 6.3	22:11 3.0
	W	23	4:23 7.8	11:14 0.8	17:35 6.0	23:10 3.5
N ☽	Th	24	5:20 7.5	12:18 0.9	18:50 5.9	. . .
	F	25	0:24 3.6	6:30 7.2	13:32 0.9	20:06 5.5
	S	26	1:54 3.6	7:50 7.2	14:46 0.7	21:16 6.7
	S	27	3:12 3.2	9:08 7.4	15:50 0.6	22:12 7.3
	M	28	4:17 2.4	10:16 7.9	16:46 0.4	23:00 8.0
P	Tu	29	5:14 1.5	11:13 8.3	17:36 0.3	23:47 8.6
E	W	30	6:04 0.8	12:04 8.5	18:21 0.3	. . .
○	Th	31	0:29 8.9	6:51 0.2	12:54 8.7	19:04 0.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator, N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	1:10	7:37	13:40	19:45
			9.1	—0.3	8.4	0.9
	S	2	1:48	8:21	14:27	20:26
			9.2	—0.4	8.0	1.5
	S	3	2:26	9:08	15:15	21:07
			9.0	—0.4	7.5	2.0
	M	4	3:06	9:55	16:06	21:55
			8.6	—0.1	6.9	2.7
	Tu	5	3:49	10:47	17:02	22:47
			8.2	0.3	6.4	3.2
S	W	6	4:40	11:41	18:00	23:54
			7.6	0.7	6.2	3.6
☾	Th	7	5:34	12:42	19:10	. . .
			7.0	1.0	6.1	. . .
	F	8	1:06	6:42	13:45	20:17
			3.8	6.6	1.3	6.2
	S	9	2:21	7:55	14:47	21:12
			3.5	6.4	1.4	6.6
A	S	10	3:26	9:06	15:38	22:00
			3.1	6.4	1.4	6.9
	M	11	4:18	10:02	16:27	22:40
			2.6	6.8	1.4	7.4
	Tu	12	5:02	10:52	17:10	23:18
			2.0	7.1	1.4	7.7
E	W	13	5:44	11:36	17:46	23:52
			1.5	7.3	1.4	8.0
	Th	14	6:19	12:16	18:20	. . .
			0.9	7.6	1.6	. . .
●	F	15	0:24	6:52	12:55	18:52
			8.3	0.5	7.5	1.9
	S	16	0:54	7:26	13:34	19:22
			8.4	0.2	7.6	2.1
	S	17	1:27	8:00	14:16	19:59
			8.4	0.0	7.4	2.4
	M	18	1:57	8:36	14:56	20:30
			8.5	—0.2	7.1	2.9
	Tu	19	2:34	9:18	15:37	21:16
			8.3	—0.1	6.9	3.1
N	W	20	3:17	10:02	16:30	22:07
			8.1	0.0	6.8	3.4
	Th	21	4:03	10:57	17:32	23:11
			7.8	0.3	6.6	3.6
☽	F	22	5:02	12:00	18:38	. . .
			7.3	0.5	6.5	. . .
	S	23	0:31	6:15	13:06	19:44
			3.6	6.8	0.8	6.8
	S	24	1:49	7:37	14:15	20:47
			3.2	6.7	1.1	7.3
	M	25	3:03	8:58	15:18	21:42
			2.5	7.0	1.1	7.8
P E	Tu	26	4:07	10:02	16:18	22:28
			1.7	7.2	1.1	8.2
	W	27	5:02	11:00	17:17	23:15
			0.9	7.7	1.1	8.8
	Th	28	5:50	11:54	17:56	23:59
			0.0	7.9	1.3	9.1
○	F	29	6:36	12:42	18:40	. . .
			—0.5	7.8	1.6	. . .
	S	30	0:39	7:22	13:30	19:23
			9.2	—0.8	7.7	2.1

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	1:18	8:07	14:16	20:07
			9.2	—1.0	7.5	2.4
	M	2	2:00	8:51	15:02	20:50
			8.9	—0.7	7.2	2.8
S	Tu	3	2:37	9:34	15:50	21:34
			8.5	—0.3	6.8	3.3
	W	4	3:17	10:18	16:35	22:25
			7.9	0.1	6.6	3.6
	Th	5	4:00	11:04	17:27	23:24
			7.4	0.5	6.5	3.7
	F	6	4:52	11:54	18:28	. . .
			6.8	1.0	6.4	. . .
☾	S	7	0:32	5:57	12:46	19:20
			3.7	6.2	1.4	6.5
A	S	8	1:40	7:10	13:42	20:16
			3.6	5.8	1.7	6.9
	M	9	2:44	8:20	14:36	21:03
			3.0	5.9	2.0	7.3
E	Tu	10	3:39	9:22	15:27	21:46
			2.4	6.2	2.1	7.6
	W	11	4:26	10:17	16:13	22:26
			1.7	6.4	2.2	8.0
	Th	12	5:07	11:06	16:47	23:05
			1.1	6.8	2.2	8.3
	F	13	5:48	11:52	17:38	23:44
			0.4	7.1	2.3	8.5
	S	14	6:26	12:36	18:20	. . .
			—0.2	7.3	2.5	. . .
●	S	15	0:20	7:04	13:20	18:57
			8.8	—0.6	7.5	2.7
	M	16	0:56	7:42	14:02	19:40
			8.8	—0.8	7.5	2.8
N	Tu	17	1:35	8:24	14:45	20:23
			8.8	—0.9	7.5	3.1
	W	18	2:17	9:08	15:32	21:12
			8.6	—0.9	7.3	3.2
	Th	19	3:00	9:57	16:22	22:10
			8.3	—0.7	7.2	3.4
	F	20	3:52	10:48	17:17	23:16
			7.8	—0.2	7.2	3.4
	S	21	4:53	11:41	18:17	. . .
			7.2	0.3	7.3	. . .
☽ P	S	22	0:23	6:04	12:40	19:17
			3.1	6.8	0.8	7.6
	M	23	1:38	7:27	13:46	20:24
			2.6	6.5	1.3	8.0
E	Tu	24	2:48	8:42	14:46	21:10
			1.9	6.6	1.5	8.3
	W	25	3:50	9:50	15:45	22:00
			1.1	6.8	1.7	8.7
	Th	26	4:44	10:50	16:42	22:47
			0.3	7.0	2.0	9.0
	F	27	5:36	11:42	17:33	23:30
			—0.4	7.2	2.2	9.1
	S	28	6:24	12:33	18:21	. . .
			—0.9	7.2	2.5	. . .
○	S	29	0:15	7:09	13:20	19:06
			9.1	—1.1	7.3	2.7
S	M	30	0:54	7:53	14:02	19:50
			9.0	—1.2	7.2	3.0
	Tu	31	1:35	8:33	14:48	20:33
			8.8	—1.0	7.2	3.3

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	2:12	9:10	15:30	21:16
			8.4	—0.5	6.9	3.6
	Th	2	2:50	9:48	16:08	22:02
			7.9	0.0	6.8	3.7
	F	3	3:30	10:25	16:52	22:50
			7.2	0.5	6.8	3.6
	S	4	4:16	11:05	17:38	23:44
			6.7	1.0	6.8	3.7
A ☾	S	5	5:07	11:45	18:26	. . .
			6.1	1.4	6.9	. . .
	M	6	0:45	6:12	12:28	19:15
			3.5	5.7	1.9	7.1
E	Tu	7	1:48	7:23	13:20	20:02
			3.0	5.6	2.3	7.3
	W	8	2:46	8:36	14:16	20:52
			2.4	5.8	2.6	7.7
	Th	9	3:40	9:40	15:12	21:38
			1.6	5.9	2.7	8.0
	F	10	4:30	10:35	16:06	22:22
			0.8	6.2	2.9	8.3
	S	11	5:17	11:27	17:00	23:08
			0.1	6.7	3.1	8.9
	S	12	6:00	12:15	17:52	23:52
			—0.6	7.1	3.1	8.9
●	M	13	6:42	13:00	18:39	. . .
			—1.0	7.2	3.1	. . .
N	Tu	14	0:33	7:25	13:47	19:27
			9.1	—1.3	7.5	3.1
	W	15	1:17	8:18	14:31	20:17
			9.0	—1.4	7.7	3.0
	Th	16	2:02	8:52	15:16	21:07
			8.9	—1.2	7.7	2.9
P	F	17	2:50	9:40	16:04	22:02
			8.5	—0.8	7.7	2.8
	S	18	3:42	10:27	16:56	23:03
			8.0	—0.3	7.8	2.6
	S	19	4:42	11:19	17:50	. . .
			7.3	0.3	7.9	. . .
☽ E	M	20	0:08	5:52	12:13	18:45
			2.4	6.7	1.0	8.1
	Tu	21	1:18	7:09	13:13	19:42
			2.1	6.4	1.6	8.2
	W	22	2:27	8:23	14:15	20:40
			1.4	6.2	2.2	8.4
	Th	23	3:32	9:35	15:19	21:33
			0.8	6.2	2.5	8.6
	F	24	4:30	10:37	16:20	22:22
			0.1	6.5	2.7	8.9
	S	25	5:20	11:32	17:16	23:08
			—0.5	6.7	2.8	8.9
	S	26	6:11	12:22	18:07	23:53
			—0.9	6.9	2.9	8.9
S ○	M	27	6:54	13:08	18:54	. . .
			—1.1	7.0	3.2	. . .
	Tu	28	0:36	7:35	13:50	19:38
			8.8	—1.0	7.0	3.2
	W	29	1:17	8:14	14:28	20:18
			8.6	—0.8	7.1	3.3
	Th	30	1:54	8:47	15:05	20:58
			8.1	—0.3	7.0	3.3

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.), and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:28 7.7	9:18 0.1	15:37 7.0	21:30 3.3
A	S	2	3:05 7.2	9:50 0.6	16:10 7.0	22:08 3.3
	S	3	3:45 6.6	10:18 1.0	16:47 7.1	22:52 3.2
E	M	4	4:31 6.2	10:52 1.5	17:28 7.1	23:47 3.1
☾	Tu	5	5:26 5.9	11:26 2.0	18:14 7.3	. . . . . .
	W	6	0:46 2.7	6:30 5.6	12:15 2.5	19:01 7.5
	Th	7	1:52 2.2	7:47 5.3	13:14 2.8	19:54 7.7
	F	8	2:53 1.6	9:00 5.4	14:17 3.2	20:52 8.0
	S	9	3:52 0.8	10:05 5.8	15:25 3.3	21:45 8.3
	S	10	4:45 0.0	11:02 6.4	16:30 3.2	22:38 8.6
N	M	11	5:34 —0.8	11:54 6.9	17:28 3.1	23:30 9.0
●	Tu	12	6:22 —1.2	12:42 7.4	18:22 2.8	. . . . . .
	W	13	0:17 9.2	7:07 —1.4	13:26 7.7	19:12 2.7
P	Th	14	1:05 9.3	7:49 —1.3	14:10 8.0	20:03 2.4
	F	15	1:50 9.2	8:33 —1.1	14:53 8.2	20:50 2.0
	S	16	2:40 8.6	9:19 —0.7	15:37 8.3	21:44 2.0
E	S	17	3:34 8.0	10:07 —0.2	16:24 8.3	22:42 1.7
	M	18	4:22 7.4	10:54 0.5	17:15 8.4	23:45 1.6
☽	Tu	19	5:35 6.9	11:46 1.3	18:10 8.3	. . . . . .
	W	20	0:52 1.4	6:50 6.2	12:45 2.1	19:08 8.3
	Th	21	2:02 1.1	8:06 5.9	13:50 2.6	20:07 8.3
	F	22	3:10 0.6	9:18 6.0	15:00 3.0	21:08 8.4
	S	23	4:10 0.1	10:24 6.2	16:06 3.2	22:00 8.5
S	S	24	5:02 —0.3	11:20 6.6	17:08 3.1	22:52 8.6
	M	25	5:52 —0.7	12:07 6.9	17:55 3.0	23:40 8.7
	Tu	26	6:35 —0.8	12:50 7.1	18:42 2.9	. . . . . .
○	W	27	0:22 8.5	7:14 —0.7	13:27 7.2	19:22 2.8
	Th	28	1:02 8.3	7:48 —0.4	14:00 7.3	20:00 2.8
	F	29	1:37 8.0	8:20 0.0	14:33 7.3	20:28 2.7
A	S	30	2:10 7.6	8:47 0.4	15:02 7.3	21:00 2.6
	S	31	2:44 7.3	9:18 0.8	15:30 7.4	21:32 2.6

AUGUST.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	3:20 6.9	9:34 1.2	16:00 7.5	22:10 2.4
	Tu	2	4:00 6.6	10:03 1.7	16:36 7.6	23:00 2.2
	W	3	4:50 6.2	10:42 2.2	17:15 7.6	23:51 2.1
☾	Th	4	5:50 5.6	11:31 2.6	18:08 7.6	. . . . . .
	F	5	0:57 1.8	7:06 5.3	12:27 3.1	19:04 7.7
	S	6	2:08 1.3	8:25 5.5	13:38 3.4	20:10 7.8
	S	7	3:14 0.7	9:37 5.9	14:58 3.5	21:14 8.1
N	M	8	4:16 0.0	10:37 6.5	16:10 3.2	22:15 8.4
	Tu	9	5:10 —0.5	11:29 7.2	17:11 2.8	23:12 9.0
	W	10	5:57 —1.0	12:16 7.6	18:05 2.3	. . . . . .
●	Th	11	0:04 9.1	6:44 —1.1	13:00 8.1	18:54 1.8
P	F	12	0:52 9.2	7:28 —1.0	13:44 8.4	19:44 1.3
	S	13	1:40 9.1	8:10 —0.7	14:24 8.7	20:32 1.0
E	S	14	2:30 8.7	8:53 —0.3	15:07 8.8	21:22 0.8
	M	15	3:21 8.2	9:38 0.4	15:50 8.7	22:18 0.8
	Tu	16	4:17 7.5	10:25 1.1	16:40 8.5	23:20 0.8
☽	W	17	5:20 6.8	11:18 1.9	17:31 8.3	. . . . . .
	Th	18	0:24 0.8	6:30 6.2	12:17 2.6	18:32 8.0
	F	19	1:30 0.8	7:47 5.9	13:20 3.1	19:37 7.9
S	S	20	2:40 0.6	9:00 5.9	14:47 3.2	20:44 7.8
	S	21	3:43 0.4	10:05 6.2	15:48 3.2	21:42 7.8
	M	22	4:38 0.0	10:57 6.7	16:50 3.0	22:35 8.0
	Tu	23	5:27 —0.1	11:42 7.1	17:40 2.7	23:24 8.2
	W	24	6:10 —0.2	12:21 7.3	18:22 2.4	. . . . . .
○	Th	25	0:08 8.2	6:47 —0.1	12:54 7.5	19:00 2.2
A	F	26	0:44 8.1	7:18 0.1	13:26 7.6	19:33 2.0
	S	27	1:22 7.9	7:48 0.5	13:57 7.7	20:03 1.9
E	S	28	1:52 7.7	8:12 0.9	14:22 7.8	20:30 1.8
	M	29	2:27 7.4	8:33 1.3	14:47 7.8	21:02 1.6
	Tu	30	3:00 7.0	8:57 1.7	15:16 7.8	21:35 1.6
	W	31	3:40 6.7	9:28 2.1	15:50 7.7	22:20 1.5

SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	4:26 6.2	10:07 2.5	16:30 7.7	23:13 1.4
☾	F	2	5:24 5.8	10:59 3.0	17:20 7.5	. . . . . .
	S	3	0:14 1.4	6:32 5.6	12:00 3.5	18:22 7.4
N	S	4	1:26 1.2	7:54 5.7	13:20 3.6	19:37 7.4
	M	5	2:42 0.8	9:10 6.1	14:46 3.5	20:53 7.6
	Tu	6	3:46 0.4	10:10 6.7	15:56 3.0	22:00 8.0
	W	7	4:40 0.0	11:02 7.4	16:58 2.3	23:00 8.5
	Th	8	5:32 —0.3	11:47 8.1	17:50 1.5	23:50 8.9
P ●	F	9	6:19 —0.5	12:30 8.6	18:38 0.8	. . . . . .
E	S	10	0:42 9.0	7:03 —0.3	13:12 9.0	19:26 0.3
	S	11	1:30 8.9	7:47 0.0	13:53 9.0	20:14 0.0
	M	12	2:20 8.6	8:26 0.5	14:33 9.1	21:02 0.0
	Tu	13	3:07 8.0	9:12 1.2	15:15 8.9	21:55 0.0
	W	14	4:00 7.3	10:00 1.9	16:00 8.6	22:50 0.2
	Th	15	5:00 6.7	10:50 2.6	16:52 8.1	23:54 0.5
☽	F	16	6:10 6.2	11:58 3.1	17:53 7.7	. . . . . .
S	S	17	1:00 0.6	7:22 6.0	13:12 3.5	19:02 7.4
	S	18	2:06 0.7	8:34 6.2	14:28 3.4	20:13 7.2
	M	19	3:10 0.6	9:35 6.6	15:34 3.1	21:18 7.1
	Tu	20	4:06 0.5	10:25 6.9	16:32 2.7	22:17 7.5
	W	21	4:55 0.5	11:07 7.3	17:19 2.2	23:05 7.7
A	Th	22	5:36 0.6	11:45 7.6	18:00 1.8	23:47 7.8
	F	23	6:13 0.7	12:18 8.0	18:36 1.5	. . . . . .
○ E	S	24	0:28 7.8	6:48 1.0	12:47 8.0	19:07 1.2
	S	25	1:02 7.7	7:12 1.2	13:17 8.1	19:37 1.0
	M	26	1:37 7.6	7:37 1.6	13:43 8.1	20:07 0.8
	Tu	27	2:12 7.4	8:06 2.0	14:08 8.1	20:38 0.7
	W	28	2:48 7.0	8:29 2.3	14:39 8.1	21:12 0.6
	Th	29	3:27 6.8	9:02 2.6	15:14 8.0	21:54 0.6
	F	30	4:12 6.4	9:45 3.1	15:57 7.7	22:45 0.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	5:07 6.0	10:40 3.5	16:47 7.4	23:44 0.9	
☾	S	2	6:17 6.0	11:50 3.7	17:54 7.1	. . . . . .	
	M	3	0:53 1.0	7:33 6.1	13:17 3.6	19:15 6.9	
	Tu	4	2:05 1.0	8:40 6.6	14:37 3.1	20:36 7.1	
	W	5	3:14 0.8	9:40 7.2	15:46 2.4	21:47 7.5	
	Th	6	4:14 0.7	10:30 8.0	16:43 1.5	22:46 8.0	
P	F	7	5:04 0.5	11:16 8.5	17:37 0.7	23:40 8.3	
E ●	S	8	5:54 0.5	12:00 9.0	18:25 —0.1	. . . . . .	
	S	9	0:28 8.5	6:36 0.7	12:40 9.3	19:12 —0.6	
	M	10	1:18 8.4	7:18 1.0	13:22 9.4	19:58 —0.8	
	Tu	11	2:06 8.1	8:02 1.5	14:02 9.2	20:46 —0.9	
	W	12	2:54 7.6	8:46 2.1	14:42 9.0	21:32 —0.6	
	Th	13	3:45 7.2	9:35 2.6	15:27 8.5	22:24 —0.2	
S	F	14	4:42 6.7	10:30 3.1	16:17 7.9	23:20 0.2	
☽	S	15	5:40 6.4	11:37 3.6	17:13 7.2	. . . . . .	
	S	16	0:20 0.6	6:50 6.4	12:48 3.6	18:22 6.7	
	M	17	1:22 1.0	7:57 6.5	14:04 3.4	19:36 6.5	
	Tu	18	2:23 1.2	8:54 6.8	15:08 3.0	20:50 6.5	
	W	19	3:20 1.3	9:42 7.1	16:05 2.5	21:48 6.8	
A	Th	20	4:08 1.3	10:26 7.6	16:52 1.9	22:38 7.0	
E	F	21	4:53 1.5	11:00 7.8	17:32 1.3	23:22 7.2	
	S	22	5:32 1.5	11:38 8.1	18:07 0.8	. . . . . .	
	S	23	0:05 7.4	6:06 1.7	12:10 8.4	18:40 0.4	
○	M	24	0:42 7.4	6:37 2.0	12:38 8.4	19:12 0.1	
	Tu	25	1:20 7.3	7:05 2.3	13:09 8.5	19:45 0.0	
	W	26	2:00 7.2	7:35 2.5	13:38 8.5	20:20 0.0	
	Th	27	2:38 7.0	8:11 2.8	14:10 8.4	20:55 —0.1	
	F	28	3:17 6.9	8:49 3.1	14:50 8.1	21:37 0.0	
N	S	29	4:03 6.7	9:38 3.5	15:35 7.7	22:27 0.3	
	S	30	5:00 6.6	10:35 3.6	16:28 7.3	23:22 0.5	
☾	M	31	6:02 6.7	11:50 3.5	17:37 6.8	. . . . . .	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	0:25 0.8	7:10 6.7	13:10 3.3	19:00 6.6	
	W	2	1:35 1.1	8:12 7.3	14:28 2.6	20:21 6.7	
	Th	3	2:42 1.3	9:07 7.9	15:34 1.8	21:33 7.0	
E	F	4	3:40 1.4	9:59 8.3	16:32 0.9	22:33 7.4	
P	S	5	4:36 1.3	10:45 8.8	17:24 0.0	23:28 7.7	
	S	6	5:27 1.6	11:30 9.2	18:12 —0.7	. . . . . .	
●	M	7	0:28 7.7	6:12 1.7	12:14 9.4	18:58 —1.0	
	Tu	8	1:08 7.7	7:00 2.1	12:54 9.4	19:45 —1.3	
	W	9	1:55 7.7	7:44 2.4	13:35 9.2	20:28 —1.2	
S	Th	10	2:42 7.4	8:30 2.7	14:16 8.9	21:14 —0.8	
	F	11	3:30 7.1	9:17 3.1	14:58 8.3	22:00 —0.3	
	S	12	4:19 6.8	10:10 3.5	15:43 7.7	22:47 0.1	
	S	13	5:10 6.6	11:10 3.6	16:37 7.0	23:36 0.7	
☽	M	14	6:07 6.6	12:18 3.6	17:38 6.4	. . . . . .	
	Tu	15	0:30 1.2	7:05 6.7	13:26 3.5	18:52 5.8	
A	W	16	1:24 1.6	8:00 6.9	14:32 3.1	20:04 5.9	
	Th	17	2:22 1.9	8:50 7.3	15:27 2.4	21:07 6.0	
E	F	18	3:10 2.1	9:32 7.6	16:17 1.9	22:00 6.2	
	S	19	4:00 2.2	10:12 8.0	16:58 1.1	22:53 6.5	
	S	20	4:43 2.4	10:50 8.2	17:37 0.5	23:40 6.7	
	M	21	5:26 2.6	11:30 8.5	18:15 0.0	. . . . . .	
○	Tu	22	0:22 7.0	6:02 2.6	12:05 8.7	18:52 —0.5	
	W	23	1:03 7.2	6:40 2.8	12:40 8.9	19:28 —0.7	
	Th	24	1:44 7.2	7:18 3.0	13:16 8.8	20:05 —0.8	
N	F	25	2:25 7.2	7:58 3.1	13:56 8.6	20:46 —0.7	
	S	26	3:06 7.3	8:45 3.2	14:35 8.3	21:31 —0.5	
	S	27	3:52 7.2	9:36 3.3	15:25 8.0	22:14 —0.2	
	M	28	4:45 7.2	10:37 3.2	16:18 7.3	23:06 0.2	
☾	Tu	29	5:41 7.3	11:42 3.0	17:24 6.9	. . . . . .	
	W	30	0:00 0.8	6:40 7.5	13:00 2.7	18:45 6.4	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	1:03 1.3	7:38 7.8	14:12 2.1	20:06 6.4	
P	F	2	2:07 1.7	8:34 8.1	15:17 1.3	21:17 6.5	
	S	3	3:10 2.0	9:28 8.5	16:18 0.5	22:22 6.7	
	S	4	4:08 2.1	10:19 9.1	17:12 —0.3	23:19 7.0	
	M	5	5:04 2.3	11:04 9.2	18:00 —1.0	. . . . . .	
●	Tu	6	0:11 7.1	5:58 2.5	11:50 9.3	18:48 —1.4	
	W	7	1:00 7.3	6:46 2.7	12:33 9.3	19:30 —1.4	
S	Th	8	1:46 7.3	7:30 2.9	13:15 9.0	20:13 —1.3	
	F	9	2:30 7.2	8:15 3.1	13:55 8.7	20:54 —0.9	
	S	10	3:12 7.2	9:00 3.3	14:37 8.2	21:32 —0.4	
	S	11	3:52 7.1	9:45 3.4	15:17 7.5	22:00 0.2	
	M	12	4:36 7.0	10:34 3.4	16:02 7.0	22:50 0.7	
	Tu	13	5:20 7.0	11:30 3.5	16:53 6.2	23:30 1.3	
☽ A	W	14	6:08 7.0	12:32 3.4	17:58 5.7	. . . . . .	
E	Th	15	0:13 1.8	7:00 7.1	13:35 3.0	19:06 5.4	
	F	16	1:04 2.3	7:47 7.2	14:33 2.6	20:18 5.5	
	S	17	2:00 2.6	8:36 7.5	15:30 1.8	21:24 5.6	
	S	18	3:00 2.9	9:22 7.8	16:18 1.1	22:20 5.9	
	M	19	3:52 3.1	10:08 8.2	17:04 0.4	23:14 6.3	
	Tu	20	4:45 3.1	10:50 8.4	17:48 —0.3	. . . . . .	
	W	21	0:00 6.7	5:37 3.1	11:35 8.9	18:28 —0.8	
○ N	Th	22	0:45 7.1	6:22 3.1	12:18 8.9	19:09 —1.1	
	F	23	1:29 7.3	7:07 3.1	13:00 9.0	19:50 —1.3	
	S	24	2:10 7.6	7:52 2.8	13:40 8.9	20:30 —1.1	
	S	25	2:52 7.7	8:37 2.8	14:27 8.6	21:15 —0.9	
	M	26	3:37 7.8	9:27 2.6	15:15 8.1	21:59 —0.4	
P	Tu	27	4:22 7.9	10:24 2.5	16:10 7.5	22:45 0.2	
	W	28	5:12 7.9	11:19 2.3	17:15 6.9	23:36 0.9	
E ☾	Th	29	6:07 8.1	12:38 2.0	18:28 6.5	. . . . . .	
	F	30	0:34 1.5	7:03 8.1	13:49 1.6	19:46 6.1	
	S	31	1:37 2.1	8:03 8.3	14:57 1.0	21:03 6.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.: ○, full moon; ☾, 3d quar.: E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:54 9.6	7:52 7.5	13:17 10.1	20:34 —0.1
N ○	S	2	4:30 10.1	8:44 7.2	14:04 10.0	21:27 —0.8
	S	3	5:07 10.6	9:42 6.9	14:54 9.8	22:00 —1.0
P	M	4	5:46 11.0	10:36 6.7	15:48 9.7	22:47 —0.6
	Tu	5	6:27 11.1	11:32 6.5	16:47 9.1	23:32 0.0
	W	6	7:05 11.1	12:32 6.4	17:52 8.5	. . . . . .
	Th	7	0:20 1.0	7:46 11.1	13:40 6.2	19:02 8.1
E	F	8	1:20 2.1	8:27 10.9	14:47 5.5	20:18 7.4
☾	S	9	2:03 3.6	9:07 10.7	15:48 4.6	21:47 7.2
	S	10	2:58 4.9	9:48 10.4	16:53 3.6	23:30 7.2
	M	11	4:00 6.2	10:33 10.2	17:52 2.7	. . . . . .
	Tu	12	1:10 7.8	5:04 6.4	11:17 10.0	18:44 1.9
	W	13	2:27 8.7	6:10 6.2	12:06 10.0	19:30 1.2
	Th	14	3:22 9.2	7:09 6.0	12:55 9.7	20:12 0.7
S	F	15	4:07 9.6	8:00 6.0	13:40 9.6	20:47 0.6
	S	16	4:45 9.9	8:55 5.9	14:22 9.4	21:22 0.6
●	S	17	5:20 10.0	9:42 5.9	15:02 9.2	21:54 0.7
	M	18	5:50 10.2	10:20 6.2	15:42 8.9	22:26 1.0
A	Tu	19	6:14 10.2	11:06 6.4	16:23 8.6	23:02 1.4
	W	20	6:37 10.1	11:47 6.4	17:08 8.2	23:37 2.0
	Th	21	7:02 10.2	12:38 6.5	18:02 7.8	. . . . . .
E	F	22	0:15 2.7	7:30 10.2	13:27 6.0	18:56 7.2
	S	23	0:54 3.6	7:59 10.0	14:18 5.3	20:00 6.9
	S	24	1:32 4.4	8:29 10.0	15:04 4.2	21:14 7.0
☽	M	25	2:18 5.4	9:01 9.9	16:00 3.6	22:45 7.2
	Tu	26	3:13 6.2	9:42 9.8	16:54 2.7	. . . . . .
	W	27	0:20 7.5	4:20 6.5	10:26 9.7	17:46 2.0
	Th	28	1:42 8.3	5:30 6.4	11:12 9.7	18:37 1.0
N	F	29	2:37 9.0	6:34 6.8	12:14 9.8	19:27 0.3
	S	30	3:24 9.7	7:35 7.0	13:00 10.0	20:14 —0.2
	S	31	4:04 10.2	8:30 6.7	13:58 9.8	21:00 —0.3

FEBRUARY.

Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○ P	M	1	4:38 10.6	9:23 6.7	14:56 9.7	21:44 —0.2
	Tu	2	5:15 10.7	10:17 6.5	15:56 9.7	22:32 0.3
	W	3	5:52 10.8	11:12 6.0	16:57 9.2	23:18 1.0
E	Th	4	6:27 10.9	12:06 5.3	17:58 8.7	. . . . . .
	F	5	0:05 2.1	7:04 10.8	13:05 4.7	19:02 8.3
	S	6	0:52 3.5	7:42 10.6	14:00 4.1	20:15 8.0
	S	7	1:40 4.6	8:22 10.3	15:00 3.6	21:37 7.6
☾	M	8	2:32 5.8	9:05 10.1	16:07 3.1	23:13 7.6
	Tu	9	3:32 6.5	9:53 9.7	17:13 2.6	. . . . . .
	W	10	0:55 8.1	4:38 6.9	10:47 9.5	18:12 2.0
S	Th	11	2:07 8.7	5:50 7.2	11:42 9.2	19:00 1.8
	F	12	3:08 9.2	7:00 7.3	12:37 9.2	19:44 1.6
	S	13	3:42 9.5	8:00 7.3	13:29 8.9	20:23 1.5
	S	14	4:17 9.7	8:48 6.9	14:21 8.8	20:59 1.6
A	M	15	4:46 9.8	9:28 6.6	15:08 8.6	21:31 1.7
●	Tu	16	5:07 9.8	10:05 6.6	15:50 8.5	22:07 2.0
	W	17	5:28 9.8	10:40 6.3	16:33 8.4	22:43 2.5
	Th	18	5:50 9.8	11:19 5.7	17:17 8.2	23:16 3.0
E	F	19	6:14 9.8	11:59 5.2	18:02 8.1	23:52 3.8
	S	20	6:40 9.7	12:42 4.5	18:54 8.1	. . . . . .
	S	21	0:30 4.5	7:10 9.6	13:24 3.8	19:52 7.9
	M	22	1:14 5.2	7:42 9.4	14:13 3.4	21:02 7.9
	Tu	23	2:04 6.2	8:21 9.3	15:07 2.8	22:16 7.9
☽	W	24	2:58 6.6	9:00 9.2	16:09 2.3	23:35 8.1
	Th	25	4:07 6.8	9:47 9.1	17:07 1.8	. . . . . .
N	F	26	0:57 8.6	5:14 6.7	10:45 9.1	18:05 1.4
	S	27	1:57 9.1	6:25 6.7	11:51 9.1	19:00 1.1
	S	28	2:44 9.5	7:25 6.7	13:00 9.2	19:50 1.0
	M	29	3:22 9.8	8:17 6.5	14:06 9.3	20:38 1.0

MARCH.

Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P ○	Tu	1	3:57 10.0	9:08 5.7	15:09 9.4	21:30 1.3
	W	2	4:32 10.4	10:00 4.9	16:07 9.5	22:18 1.9
E	Th	3	5:07 10.4	10:48 4.2	17:04 9.4	23:02 2.8
	F	4	5:42 10.3	11:38 3.7	18:05 9.3	23:45 3.8
	S	5	6:20 10.1	12:28 3.1	19:04 8.9	. . . . . .
	S	6	0:32 4.7	6:59 9.9	13:17 2.9	20:10 8.5
	M	7	1:20 5.7	7:42 9.8	14:16 2.7	21:22 8.2
☾	Tu	8	2:10 6.8	8:27 9.3	15:17 2.6	22:48 8.2
S	W	9	3:16 7.2	9:17 9.1	16:20 2.5	. . . . . .
	Th	10	0:16 8.6	4:33 7.4	10:17 8.6	17:23 2.6
	F	11	1:27 8.9	5:58 7.4	11:20 8.2	18:18 2.7
	S	12	2:17 9.2	7:10 7.3	12:30 8.1	19:05 2.7
A	S	13	2:54 9.4	8:00 7.1	13:32 8.2	19:47 2.8
	M	14	3:26 9.5	8:35 6.7	14:26 8.2	20:33 3.1
	Tu	15	3:48 9.6	9:07 6.1	15:12 8.3	21:12 3.2
●	W	16	4:10 9.5	9:37 5.3	15:52 8.4	21:45 3.5
E	Th	17	4:32 9.4	10:10 4.6	16:35 8.7	22:22 4.0
	F	18	4:56 9.3	10:49 4.0	17:17 8.9	22:54 4.4
	S	19	5:22 9.2	11:24 3.5	18:05 9.0	23:35 4.9
	S	20	5:52 9.1	12:05 2.7	18:52 9.1	. . . . . .
	M	21	0:15 5.5	6:22 9.0	12:45 2.4	19:47 9.0
	Tu	22	1:00 6.3	6:54 8.8	13:32 2.1	20:44 8.9
	W	23	1:52 6.7	7:32 9.0	14:26 1.9	21:50 8.8
N ☽	Th	24	2:55 6.7	8:18 9.2	15:25 1.9	23:00 8.8
	F	25	4:09 6.7	9:25 8.9	16:28 2.1	. . . . . .
	S	26	0:07 8.9	5:20 6.7	10:36 8.7	17:30 2.3
	S	27	1:04 9.0	6:23 6.7	11:56 8.6	18:30 2.5
	M	28	1:52 9.2	7:18 6.3	13:14 8.6	19:31 2.8
P	Tu	29	2:31 9.5	8:08 5.3	14:15 8.5	20:23 3.4
E	W	30	3:07 9.8	8:54 4.5	15:15 8.9	21:10 3.8
○	Th	31	3:42 10.0	9:40 3.4	16:13 9.2	21:56 4.3

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	4:18	10:27	17:12	22:42
			10.1	2.3	9.8	4.5
	S	2	4:56	11:10	18:06	23:26
			10.0	1.9	9.6	5.3
	S	3	5:34	11:53	19:02	. . .
			9.8	1.6	9.4	. . .
	M	4	0:10	6:12	12:40	20:02
			6.0	9.6	1.7	9.1
	Tu	5	1:00	6:54	13:32	21:03
			6.7	9.1	2.0	9.0
S	W	6	1:59	7:38	14:37	22:10
			6.7	8.8	2.3	8.9
☾	Th	7	3:12	8:32	15:23	23:17
			6.8	8.2	2.7	8.8
	F	8	4:42	9:40	16:21	. . .
			6.8	7.7	3.2	. . .
	S	9	0:20	6:12	10:58	17:18
			9.0	7.0	7.4	3.5
A	S	10	1:05	7:08	12:20	18:20
			9.0	6.5	7.2	3.9
	M	11	1:44	7:40	13:30	19:12
			9.2	6.0	7.3	4.2
	Tu	12	2:13	8:10	14:25	19:54
			9.3	5.4	7.8	4.3
E	W	13	2:38	8:38	15:08	20:32
			9.2	4.7	8.3	4.6
	Th	14	3:02	9:07	15:52	21:12
			9.1	3.9	8.8	4.9
●	F	15	3:27	9:40	16:34	21:50
			9.1	3.2	9.2	5.4
	S	16	3:50	10:15	17:18	22:30
			9.1	2.5	9.5	5.8
	S	17	4:16	10:51	18:02	23:15
			9.1	2.0	9.8	6.4
	M	18	4:54	11:31	18:50	. . .
			9.1	1.5	10.0	. . .
	Tu	19	0:00	5:25	12:14	19:42
			6.7	9.1	1.3	10.0
N	W	20	0:50	6:02	13:00	20:34
			6.8	8.9	1.3	10.0
	Th	21	1:52	6:48	13:54	21:32
			6.8	8.4	1.5	9.9
☽	F	22	3:00	7:54	14:50	22:28
			6.7	8.0	2.0	9.9
	S	23	4:17	9:10	15:54	23:23
			6.7	7.7	2.5	9.8
	S	24	5:26	10:40	17:02	. . .
			6.4	7.6	3.0	. . .
	M	25	0:15	6:22	12:10	18:06
			9.8	5.6	7.8	3.6
P E	Tu	26	0:57	7:10	13:29	19:04
			9.8	4.5	8.3	4.2
	W	27	1:37	7:55	14:32	19:55
			9.6	3.5	9.1	4.5
	Th	28	2:14	8:35	15:32	20:40
			9.6	2.5	9.5	5.0
○	F	29	2:53	9:14	16:28	21:30
			9.7	1.7	9.8	5.6
	S	30	3:35	9:58	17:21	22:16
			9.7	1.1	10.0	6.2

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	4:10	10:42	18:10	23:00
			9.7	0.9	10.0	6.7
	M	2	4:47	11:24	19:00	23:50
			9.7	0.9	9.9	6.7
S	Tu	3	5:24	12:06	19:50	. . .
			9.2	1.1	9.8	. . .
	W	4	0:46	6:05	12:52	20:42
			6.7	8.7	1.6	9.6
	Th	5	1:50	6:52	13:38	21:30
			6.7	8.1	2.2	9.5
	F	6	3:16	7:47	14:27	22:18
			6.7	7.5	2.9	9.5
☾	S	7	4:56	8:56	15:27	23:04
			6.7	7.2	3.6	9.4
A	S	8	5:57	10:29	16:26	23:48
			6.3	7.0	4.2	9.4
	M	9	6:37	11:55	17:22	. . .
			5.7	6.9	4.7	. . .
E	Tu	10	0:22	7:02	13:17	18:13
			9.2	5.0	7.5	5.3
	W	11	0:53	7:32	14:20	19:02
			9.0	4.1	8.0	5.7
	Th	12	1:23	8:00	15:08	19:50
			9.0	3.2	8.2	5.9
	F	13	1:53	8:30	15:52	20:35
			9.0	2.4	9.1	6.3
	S	14	2:30	9:06	16:33	21:17
			9.0	1.7	9.7	6.7
●	S	15	3:00	9:43	17:17	22:04
			9.0	1.0	10.1	6.7
	M	16	3:32	10:22	18:00	22:54
			9.0	0.5	10.5	6.7
N	Tu	17	4:02	11:05	18:47	23:44
			9.1	0.3	10.8	6.7
	W	18	4:38	11:48	19:32	. . .
			9.0	0.3	10.8	. . .
	Th	19	0:44	5:28	12:35	20:20
			6.7	8.5	0.7	10.9
	F	20	1:50	6:32	13:27	21:09
			6.7	8.5	1.3	10.6
	S	21	3:08	7:47	14:24	21:56
			6.7	8.1	2.2	10.4
☽ P	S	22	4:15	9:11	15:27	22:42
			6.5	7.6	3.2	10.2
	M	23	5:18	10:46	16:30	23:24
			5.4	7.4	4.2	10.0
E	Tu	24	6:06	12:21	17:34	. . .
			4.4	7.6	5.0	. . .
	W	25	0:06	6:49	13:44	18:32
			10.0	3.2	8.2	5.7
	Th	26	0:47	7:37	14:52	19:25
			10.0	2.2	9.0	6.6
	F	27	1:30	8:19	15:51	20:15
			9.8	1.1	9.7	6.7
	S	28	2:11	9:00	16:42	21:00
			9.8	0.6	10.0	6.7
○	S	29	2:50	9:42	17:30	21:50
			9.8	0.3	10.2	6.7
S	M	30	3:24	10:20	18:12	22:35
			9.7	0.1	10.2	7.0
	Tu	31	4:00	11:00	18:55	23:32
			9.6	0.4	10.2	7.2

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	4:40	11:37	19:34	. . .
			8.8	0.8	10.2	. . .
	Th	2	0:27	5:23	12:20	20:12
			7.2	8.3	1.4	10.3
	F	3	1:35	6:12	13:00	20:50
			7.0	7.5	2.1	10.1
	S	4	2:56	7:10	13:46	21:26
			6.7	7.0	2.9	10.0
A ☾	S	5	4:17	8:20	14:34	22:00
			6.3	6.8	3.9	10.0
	M	6	5:07	9:50	15:25	22:37
			5.7	6.7	4.7	9.7
E	Tu	7	5:38	11:27	16:20	23:10
			5.0	6.5	5.5	9.6
	W	8	6:10	12:54	17:16	23:42
			4.0	7.0	6.3	9.5
	Th	9	6:46	14:06	18:12	. . .
			3.0	7.8	6.5	. . .
	F	10	0:20	7:24	15:02	19:09
			9.4	2.0	8.7	6.7
	S	11	0:59	8:00	15:47	19:57
			9.4	1.2	9.3	6.7
	S	12	1:32	8:40	16:28	20:46
			9.4	0.5	9.8	6.6
●	M	13	2:04	9:19	17:10	21:40
			9.4	0.0	10.4	6.3
N	Tu	14	2:45	10:00	17:58	22:28
			9.2	—0.3	10.8	7.2
	W	15	3:27	10:43	18:32	23:27
			9.0	—0.4	11.2	7.1
	Th	16	4:20	11:28	19:15	. . .
			8.9	0.0	11.2	. . .
P	F	17	0:27	5:22	12:14	19:55
			6.9	8.5	0.6	11.2
	S	18	1:35	6:32	13:06	20:37
			6.7	8.0	1.6	11.0
	S	19	2:45	7:47	14:00	21:18
			6.0	7.4	2.9	11.0
☽ E	M	20	3:58	9:12	14:57	22:00
			5.1	7.0	4.2	10.5
	Tu	21	4:48	10:50	15:58	22:42
			4.1	7.2	5.3	10.3
	W	22	5:43	12:30	17:00	23:22
			3.0	7.6	6.3	10.2
	Th	23	6:35	13:55	18:02	. . .
			2.0	8.5	6.7	. . .
	F	24	0:06	7:22	15:00	18:57
			10.2	1.0	9.2	7.1
	S	25	0:52	8:07	15:55	19:50
			10.2	0.4	9.5	7.2
	S	26	1:36	8:44	16:44	20:40
			10.1	0.0	10.1	7.4
S ○	M	27	2:15	9:22	17:25	21:33
			9.9	0.0	10.1	7.6
	Tu	28	2:53	10:00	18:02	22:22
			9.4	0.1	10.5	7.6
	W	29	3:33	10:36	18:38	23:10
			9.2	0.5	10.5	7.4
	Th	30	4:15	11:15	19:04	. . .
			8.7	0.9	10.5	. . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:02	5:00	11:49	19:36	
			7.2	8.0	1.5	10.4	
A	S	2	1:04	5:56	12:30	20:06	
			6.8	7.5	2.2	10.4	
	S	3	2:00	6:55	13:10	20:35	
			6.7	7.0	3.2	10.5	
E	M	4	3:03	8:05	13:50	21:07	
			5.8	6.7	4.2	10.2	
☾	Tu	5	3:47	9:20	14:36	21:37	
			5.1	6.7	5.0	10.0	
	W	6	4:32	10:46	15:27	22:10	
			4.2	6.7	5.9	9.8	
	Th	7	5:22	12:23	16:22	22:48	
			3.2	7.2	6.4	9.7	
	F	8	6:03	13:42	17:32	23:30	
			2.3	8.0	7.0	9.6	
	S	9	6:48	14:43	18:33	. . .	
			1.4	8.8	6.7	. . .	
	S	10	0:10	7:32	15:30	19:28	
			9.6	0.6	9.6	6.7	
N	M	11	0:52	8:16	16:11	20:25	
			9.6	0.0	10.0	6.7	
●	Tu	12	1:37	8:57	16:50	21:14	
			9.5	—0.4	10.6	7.2	
	W	13	2:30	9:40	17:26	22:12	
			9.5	—0.5	11.0	7.0	
P	Th	14	3:26	10:25	18:07	23:06	
			9.4	—0.3	11.1	6.7	
	F	15	4:27	11:10	18:42	. . .	
			9.1	0.4	11.2	. . .	
	S	16	0:05	5:30	12:00	19:21	
			6.3	8.7	1.2	11.1	
E	S	17	1:05	6:38	12:50	19:57	
			5.7	7.8	2.4	11.1	
	M	18	2:10	7:52	13:38	20:37	
			5.0	7.4	3.7	10.7	
☽	Tu	19	3:07	9:10	14:32	21:20	
			4.1	7.2	5.0	10.7	
	W	20	4:10	10:46	15:30	22:00	
			3.2	7.4	6.2	10.4	
	Th	21	5:13	12:29	16:33	22:48	
			2.3	8.0	6.7	10.2	
	F	22	6:10	13:54	17:34	23:39	
			1.5	8.5	7.2	10.0	
	S	23	7:00	14:56	18:38	. . .	
			0.9	9.4	7.4	. . .	
S	S	24	0:28	7:47	15:44	19:37	
			9.5	0.5	9.6	7.7	
	M	25	1:16	8:27	16:27	20:30	
			9.4	0.4	10.0	7.7	
	Tu	26	2:04	9:05	17:05	21:17	
			9.0	0.4	10.0	7.4	
○	W	27	2:50	9:42	17:35	22:08	
			8.8	0.7	10.1	7.2	
	Th	28	3:33	10:16	18:02	22:50	
			8.7	1.1	10.3	6.7	
	F	29	4:18	10:48	18:27	23:34	
			8.4	1.7	10.4	6.7	
A	S	30	5:05	11:25	18:50	. . .	
			7.8	2.0	10.3	. . .	
	S	31	0:21	5:52	12:00	19:16	
			6.7	7.5	2.9	10.3	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	1:08	6:43	12:35	19:42	
			5.7	7.2	3.9	10.1	
	Tu	2	1:57	7:47	13:16	20:13	
			5.2	7.0	4.7	10.0	
	W	3	2:42	8:56	14:02	20:57	
			4.2	6.9	5.3	9.9	
☾	Th	4	3:33	10:12	14:52	21:23	
			3.6	6.7	6.4	9.8	
	F	5	4:28	11:45	15:54	22:06	
			2.7	7.5	6.7	9.7	
	S	6	5:22	13:11	17:05	22:50	
			2.0	8.2	7.0	9.6	
	S	7	6:12	14:07	18:10	23:42	
			1.3	9.0	7.0	9.5	
N	M	8	7:00	14:55	19:09	. . .	
			0.7	9.6	7.0	. . .	
	Tu	9	0:38	7:50	15:36	20:07	
			9.7	0.2	10.1	6.8	
	W	10	1:37	8:37	16:12	21:00	
			9.6	0.0	10.3	6.7	
●	Th	11	2:38	9:22	16:50	21:52	
			9.6	0.2	10.6	6.4	
P	F	12	3:37	10:08	17:23	22:44	
			9.4	0.6	10.8	6.0	
	S	13	4:37	10:56	17:58	23:37	
			9.1	1.4	10.7	5.1	
E	S	14	5:37	11:43	18:36	. . .	
			8.7	2.4	10.8	. . .	
	M	15	0:30	6:42	12:28	19:15	
			4.5	8.3	3.7	10.5	
	Tu	16	1:27	7:50	13:17	19:55	
			3.6	8.1	5.0	10.4	
☽	W	17	2:24	9:09	14:12	20:38	
			3.1	7.8	6.0	10.2	
	Th	18	3:30	10:37	15:12	21:30	
			2.5	8.0	6.7	10.0	
	F	19	4:36	12:13	16:18	22:22	
			2.0	8.4	6.7	9.7	
S	S	20	5:39	13:32	17:32	23:17	
			1.8	9.0	7.0	9.6	
	S	21	6:34	14:30	18:42	. . .	
			1.5	9.5	7.2	. . .	
	M	22	0:15	7:22	15:15	19:40	
			9.2	1.3	9.7	7.5	
	Tu	23	1:14	8:05	15:52	20:30	
			9.0	1.3	9.8	6.9	
	W	24	2:08	8:41	16:24	21:12	
			8.8	1.4	9.8	6.7	
○	Th	25	2:58	9:17	16:48	21:50	
			8.5	1.7	9.8	6.7	
A	F	26	3:43	9:54	17:11	22:25	
			8.5	2.1	9.8	6.2	
	S	27	4:26	10:30	17:32	23:02	
			8.2	2.6	9.8	5.7	
E	S	28	5:09	11:03	17:56	23:40	
			8.0	3.3	9.8	5.2	
	M	29	5:54	11:37	18:22	. . .	
			7.8	4.0	9.5	. . .	
	Tu	30	0:22	6:42	12:14	18:50	
			4.5	7.9	4.7	9.2	
	W	31	1:05	7:38	12:56	19:23	
			4.0	7.8	5 4	9.2	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	1:47	8:40	13:42	19:58	
			3.4	7.7	6.2	9.3	
☾	F	2	2:39	9:50	14:38	20:38	
			3.0	7.7	6.7	9.2	
	S	3	3:38	10:58	15:47	21:24	
			2.5	8.0	6.7	9.1	
N	S	4	4:37	12:14	16:55	22:23	
			2.0	8.5	6.7	9.1	
	M	5	5:35	13:17	18:00	23:50	
			1.7	8.9	6.7	9.0	
	Tu	6	6:30	14:05	19:00	. . .	
			1.3	9.4	6.7	. . .	
	W	7	0:40	7:22	14:46	19:55	
			9.0	1.2	9.7	6 3	
	Th	8	1:46	8:15	15:24	20:43	
			9.2	1.2	10.0	5.6	
P ●	F	9	2:48	9:06	16:00	21:32	
			9.3	1.5	10.3	4.7	
E	S	10	3:43	9:53	16:35	22:20	
			9.4	2.1	10.4	3.9	
	S	11	4:42	10:40	17:12	23:10	
			9.3	3.0	10.2	3.2	
	M	12	5:42	11:22	17:48	23:58	
			9.4	3.8	10.0	2.7	
	Tu	13	6:43	12:10	18:30	. . .	
			9.1	4.8	10.0	. . .	
	W	14	0:47	7:50	13:00	19:13	
			2.3	8.7	5.8	9.7	
	Th	15	1:42	9:00	13:54	20:00	
			2.2	8.4	6.7	9.5	
☽	F	16	2:43	10:20	14:58	20:50	
			2.2	8.4	6.7	9.0	
S	S	17	3:48	11:40	16:20	21:50	
			2.2	8.7	6.8	8.7	
	S	18	4:53	12:52	17:47	23:00	
			2.3	9.0	7.4	8.4	
	M	19	5:52	13:45	19:02	. . .	
			2.4	9.0	6.7	. . .	
	Tu	20	0:13	6:42	14:25	19:50	
			8.3	2.6	9.3	6.7	
	W	21	1:20	7:30	14:57	20:22	
			8.0	2.7	9.5	6.5	
A	Th	22	2:14	8:13	15:24	20:56	
			8.0	3.0	9.5	6.0	
	F	23	3:02	8:53	15:48	21:26	
			8.2	3.4	9.5	5.3	
○ E	S	24	3:45	9:27	16:10	21:57	
			8.3	3.7	9.5	4.6	
	S	25	4:26	10:02	16:36	22:30	
			8.5	4.0	9.2	4.0	
	M	26	5:08	10:37	16:57	23:05	
			8.7	4.5	9.1	3.5	
	Tu	27	5:52	11:15	17:26	23:43	
			8.8	5.0	9.0	3.0	
	W	28	6:36	11:58	17:53	. . .	
			8.8	5.7	8.7	. . .	
	Th	29	0:22	7:27	12:37	18:23	
			2.7	8.8	6.5	8.7	
	F	30	1:03	8:23	13:30	18:58	
			2.3	8.8	6.7	8.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
N	S	1	1:55	9:22	14:33	19:48		Tu	1	3:22	10:49	17:00	22:06	E	Th	1	3:52	10:52	17:36	23:47
			2.2	8.8	6.7	8.5				2.6	9.9	6.5	7.5				4.3	10.0	4.2	7.4
☾	S	2	2:53	10:26	15:43	20:53		W	2	4:28	11:37	17:57	23:40	P	F	2	4:57	11:32	18:22	. . .
			2.2	9.0	6.7	8.3				3.3	9.9	5.5	7.5				5.3	9.9	3.1	. . .
	M	3	3:53	11:30	16:56	22:10		Th	3	5:33	12:20	18:45	. . .		S	3	1:18	6:00	12:12	19:10
			2.3	9.2	6.7	8.2				4.0	9.7	4.3	. . .				8.0	6.2	9.8	1.9
	Tu	4	4:57	12:25	18:00	23:32	E	F	4	1:04	6:30	13:02	19:28		S	4	2:30	6:56	13:02	19:56
			2.3	9.2	6.6	8.2				8.3	4.6	9.7	3.2				8.8	6.7	9.8	11.0
	W	5	6:02	13:12	18:52	. . .	P	S	5	2:10	7:27	13:40	20:09		M	5	3:28	7:47	13:40	20:39
			2.5	9.6	5.7	. . .				9.0	4.8	9.7	2.1				9.5	6.7	9.7	0.1
	Th	6	0:50	7:02	13:54	19:42		S	6	3:12	8:17	14:22	20:52	●	Tu	6	4:22	8:41	14:20	21:20
			8.5	2.7	9.8	4.7				9.4	5.5	9.7	1.3				10.0	6.7	9.6	—0.3
P	F	7	1:54	7:55	14:30	20:28	●	M	7	4:07	9:05	15:02	21:34		W	7	5:10	9:28	15:00	22:00
			8.7	3.1	9.9	3.7				9.9	6.0	9.6	0.6				10.1	7.1	9.5	—0.4
E	S	8	2:54	8:43	15:07	21:13		Tu	8	5:00	9:50	15:37	22:18	S	Th	8	5:52	10:18	15:38	22:40
●			9.3	3.5	9.8	2.9				10.2	6.5	9.6	0.2				10.5	7.2	9.3	—0.2
	S	9	3:54	9:30	15:47	22:00		W	9	5:50	10:35	16:15	23:00		F	9	6:35	11:10	16:22	23:20
			9.8	4.0	9.8	2.0				10.2	6.7	9.4	0.2				10.5	7.2	9.1	0.2
	M	10	4:50	10:15	16:24	22:41	S	Th	10	6:42	11:25	16:54	23:44		S	10	7:14	12:05	17:05	23:59
			10.0	4.6	9.8	1.5				10.2	6.7	9.0	0.5				10.5	7.1	8.4	1.0
	Tu	11	5:46	11:00	17:04	23:26		F	11	7:32	12:23	17:34	. . .		S	11	7:52	13:11	17:55	. . .
			9.9	5.4	9.7	1.3				10.1	6.7	8.7	. . .				10.5	7.0	7.8	. . .
	W	12	6:44	11:48	17:41	. . .		S	12	0:28	8:22	13:30	18:22		M	12	0:40	8:30	14:33	18:57
			9.8	6.1	9.6	. . .				1.1	10.0	6.7	8.2				1.7	10.4	7.0	7.2
	Th	13	0:12	7:42	12:40	18:22		S	13	1:15	9:10	14:58	19:27		Tu	13	1:26	9:09	15:40	20:00
			1.2	9.4	6.7	9.1				1.9	9.9	6.7	7.5				2.7	10.3	6.3	7.0
S	F	14	1:03	8:43	13:40	19:10	☽	M	14	2:06	9:58	16:55	20:37	☽ A	W	14	2:12	9:47	16:45	21:27
			1.5	9.2	6.7	8.7				2.6	9.8	6.7	7.1				3.8	10.0	5.7	6.7
☽	S	15	1:56	9:48	14:52	20:05		Tu	15	3:04	10:46	18:06	22:10	E	Th	15	3:00	10:20	17:34	23:12
			2.0	9.0	6.8	8.3				3.6	9.7	6.2	7.0				4.8	9.8	5.1	6.7
	S	16	2:55	10:52	16:48	21:17	A	W	16	4:05	11:28	18:41	23:49		F	16	3:52	10:52	18:06	. . .
			2.5	9.0	6.7	7.6				4.3	9.6	5.7	6.7				5.7	9.6	4.2	. . .
	M	17	3:59	11:50	18:12	22:38		Th	17	5:00	12:04	19:04	. . .		S	17	0:51	4:52	11:27	18:40
			3.1	9.0	6.7	7.5				5.1	9.4	4.9	. . .				7.0	6.4	9.5	3.2
	Tu	18	4:57	12:40	19:06	. . .	E	F	18	1:12	5:55	12:38	19:22		S	18	2:06	5:43	12:00	19:16
			3.5	9.2	6.4	. . .				7.2	5.7	9.2	4.1				7.5	6.7	9.4	2.2
	W	19	0:08	6:00	13:20	19:38		S	19	2:15	6:43	13:06	19:51		M	19	2:59	6:48	12:43	19:50
			7.2	4.0	9.3	5.7				7.7	6.2	9.1	3.0				8.2	6.7	9.4	1.4
A	Th	20	1:23	6:52	13:50	20:05		S	20	3:06	7:32	13:37	20:20		Tu	20	3:43	7:38	13:17	20:27
			7.5	4.3	9.3	5.0				8.3	6.4	9.1	2.3				9.1	6.8	9.3	0.7
E	F	21	2:21	7:36	14:17	20:29		M	21	3:49	8:14	14:12	20:58		W	21	4:24	8:22	13:51	21:04
			8.0	4.6	9.1	4.3				8.7	6.5	8.9	1.7				9.7	7.2	9.3	0.1
	S	22	3:08	8:16	14:41	20:58	○	Tu	22	4:27	9:00	14:38	21:28	○ N	Th	22	4:56	9:13	14:28	21:42
			8.5	5.0	9.0	3.7				9.4	6.7	8.8	1.0				10.1	7.2	9.2	—0.1
	S	23	3:47	8:54	15:07	21:26		W	23	5:07	9:44	15:07	22:04		F	23	5:33	10:09	15:12	22:23
			8.8	5.0	9.0	3.0				9.8	6.8	9.0	0.5				10.7	7.2	9.2	—0.2
○	M	24	4:26	9:32	15:34	22:00		Th	24	5:47	10:28	15:36	22:43		S	24	6:10	11:00	16:00	23:07
			9.0	5.5	9.0	2.3				10.3	6.9	9.0	0.3				11.0	7.0	9.0	0.1
	Tu	25	5:08	10:12	16:02	22:35	N	F	25	6:27	11:17	16:09	23:26		S	25	6:48	11:57	17:00	23:54
			9.4	6.0	9.0	1.9				10.5	7.0	9.0	0.4				11.1	6.8	8.8	0.7
	W	26	5:50	10:52	16:27	23:10		S	26	7:10	12:10	16:53	. . .		M	26	7:28	12:57	18:08	. . .
			9.5	6.3	8.9	1.5				10.7	7.0	8.3	. . .				11.1	6.7	8.2	. . .
	Th	27	6:35	11:37	16:52	23:49		S	27	0:10	7:55	13:16	17:52	P	Tu	27	0:39	8:07	14:01	19:15
			9.8	6.7	9.0	1.3				0.6	10.7	6.9	8.0				1.5	11.0	5.9	7.6
	F	28	7:22	12:27	17:22	. . .		M	28	0:58	8:40	14:24	19:07		W	28	1:30	8:47	15:09	20:37
			9.9	6.7	8.5	. . .				1.4	10.7	6.7	7.5				2.7	10.9	5.2	7.2
N	S	29	0:34	8:11	13:26	18:09	☾	Tu	29	1:53	9:26	15:38	20:31	E ☾	Th	29	2:25	9:28	16:07	22:07
			1.3	9.8	6.7	8.3				2.2	10.6	6.3	7.1				4.2	10.4	4.2	7.0
	S	30	1:22	9:04	14:31	19:12		W	30	2:50	10:10	16:45	22:07		F	30	3:21	10:08	17:07	23:52
			1.6	9.8	6.7	7.9				3.3	10.4	5.3	7.0				5.4	10.2	3.2	6.0
☾	M	31	2:20	9:57	15:48	20:36									S	31	4:23	10:48	18:02	. . .
			2.0	9.8	6.7	7.5											6.2	10.0	2.0	. . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Pacific Standard, 120th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:37 5.2	10:34 12.5	17:24 0.2	23:57 10.7	
N ○	S	2	5:28 4.8	11:22 12.8	18:06 —0.4	. . . . . .	
	S	3	0:42 11.2	6:16 4.5	12:10 13.2	18:50 —0.8	
P	M	4	1:25 11.7	7:06 4.2	12:57 13.1	19:35 —0.8	
	Tu	5	2:08 11.9	7:56 4.0	13:45 12.9	20:20 —0.5	
	W	6	2:53 12.0	8:46 3.9	14:36 12.2	21:06 0.3	
	Th	7	3:40 12.0	9:40 3.9	15:30 11.4	21:52 1.2	
E ☾	F	8	4:26 11.8	10:39 4.0	16:30 10.5	22:44 2.3	
	S	9	5:18 11.7	11:38 4.0	17:38 9.7	23:45 3.4	
	S	10	6:13 11.3	12:50 4.00	19:00 9.0	. . . . . .	
	M	11	0:48 4.5	7:13 11.1	14:05 3.6	20:25 8.7	
	Tu	12	1:57 5.2	8:16 11.0	15:10 3.0	21:48 8.8	
	W	13	3:06 5.5	9:13 11.2	16:10 2.3	22:45 9.2	
	Th	14	4:07 5.8	10:07 11.3	16:55 1.6	23:37 9.7	
S	F	15	5:02 5.6	10:50 11.5	17:37 1.1	. . . . . .	
	S	16	0:18 10.2	5:47 5.5	11:34 11.6	18:16 0.8	
●	S	17	0:55 10.4	6:26 5.4	12:13 11.6	18:50 0.7	
	M	18	1:28 10.7	7:04 5.3	12:50 11.5	19:22 0.8	
A	Tu	19	1:57 10.8	7:38 5.1	13:22 11.3	19:52 1.2	
	W	20	2:25 10.8	8:13 5.0	13:54 11.0	20:20 1.5	
	Th	21	2:54 10.9	8:48 4.9	14:27 10.6	20:52 2.0	
E	F	22	3:23 10.9	9:27 4.8	15:07 10.1	21:25 2.6	
	S	23	3:54 10.9	10:06 4.6	15:58 9.7	22:03 3.4	
	S	24	4:30 10.8	10:52 4.4	16:46 9.0	22:45 4.1	
☽	M	25	5:12 10.8	11:52 4.2	17:48 8.5	23:37 4.8	
	Tu	26	6:02 10.8	13:00 3.8	19:09 8.1	. . . . . .	
	W	27	0:45 5.5	7:02 10.9	14:11 3.2	20:40 8.4	
	Th	28	2:00 5.8	8:10 11.2	15:15 2.2	21:52 9.0	
N	F	29	3:16 5.9	9:15 11.6	16:12 1.3	22:51 9.9	
	S	30	4:18 5.3	10:13 12.2	17:02 0.4	23:39 10.6	
	S	31	5:15 4.7	11:08 12.8	17:49 —0.2	. . . . . .	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○ P	M	1	0:24 11.4	6:05 4.0	12:00 13.1	18:35 —0.5	
	Tu	2	1:05 12.0	6:58 3.5	12:50 13.2	19:19 —0.5	
	W	3	1:47 12.5	7:41 3.0	13:40 13.0	20:01 0.0	
E	Th	4	2:28 12.6	8:28 2.7	14:27 12.5	20:46 0.6	
	F	5	3:09 12.6	9:20 2.7	15:18 11.5	21:30 1.6	
	S	6	3:53 12.3	10:10 2.9	16:12 10.8	22:20 2.7	
	S	7	4:42 11.8	11:07 3.2	17:17 9.8	23:12 4.0	
☾	M	8	5:32 11.3	12:16 3.5	18:33 9.1	. . . . . .	
	Tu	9	0:13 5.1	6:32 10.8	13:30 3.5	20:02 8.5	
	W	10	1:26 5.8	7:40 10.5	14:46 3.2	21:26 8.7	
S	Th	11	2:45 6.1	8:47 10.5	15:44 2.7	22:31 9.2	
	F	12	3:54 6.1	9:46 10.7	16:34 2.2	23:20 9.8	
	S	13	4:50 5.8	10:37 10.9	17:18 1.8	23:59 10.2	
	S	14	5:34 5.5	11:20 11.1	17:53 1.5	. . . . . .	
A	M	15	0:31 10.6	6:11 5.0	12:00 11.2	18:27 1.3	
●	Tu	16	0:59 10.9	6:45 4.7	12:34 11.4	18:56 1.4	
	W	17	1:25 11.0	7:15 4.3	13:06 11.2	19:25 1.7	
E	Th	18	1:48 11.2	7:46 4.0	13:38 11.1	19:52 2.0	
	F	19	2:14 11.2	8:18 3.7	14:12 10.9	20:24 2.4	
	S	20	2:42 11.4	8:50 3.5	14:50 10.6	20:57 3.1	
	S	21	3:12 11.3	9:28 3.3	15:31 10.1	21:33 3.7	
	M	22	3:46 11.2	10:15 3.3	16:16 9.5	22:15 4.4	
	Tu	23	4:28 11.0	11:08 3.3	17:19 8.8	23:07 5.2	
☽	W	24	5:19 10.8	12:15 3.3	18:38 8.4	. . . . . .	
	Th	25	0:15 5.7	6:24 10.7	13:32 3.0	20:10 8.6	
N	F	26	1:38 6.0	7:40 10.8	14:45 2.5	21:28 9.2	
	S	27	3:00 5.7	8:56 11.2	15:47 1.7	22:26 10.1	
	S	28	4:05 5.1	10:00 11.7	16:42 1.0	23:15 11.0	
	M	29	5:00 4.1	10:58 12.3	17:30 0.5	23:55 11.8	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	5:51 3.2	11:51 12.9	18:15 0.2	. . . . . .	
	W	2	0:37 12.5	6:37 2.4	12:41 13.0	18:58 0.3	
E	Th	3	1:17 12.9	7:22 1.8	13:28 12.9	19:40 0.8	
	F	4	1:57 13.0	8:08 1.6	14:16 12.5	20:23 1.5	
	S	5	2:37 12.7	8:52 1.7	15:04 11.8	21:08 2.4	
	S	6	3:18 12.3	9:43 2.0	15:53 10.8	21:53 3.5	
	M	7	4:02 11.7	10:40 2.5	16:52 9.8	22:44 4.6	
☾	Tu	8	4:52 11.0	11:40 3.0	18:05 9.0	23:45 5.6	
S	W	9	5:52 10.3	12:50 3.4	19:34 8.7	. . . . . .	
	Th	10	1:04 6.3	7:08 9.8	14:02 3.5	21:00 8.8	
	F	11	2:28 6.4	8:20 9.6	15:10 3.2	22:00 9.3	
	S	12	3:40 6.2	9:25 9.7	16:05 2.9	22:48 9.8	
A	S	13	4:33 5.6	10:17 10.1	16:48 2.6	23:25 10.3	
	M	14	5:14 5.0	11:04 10.5	17:23 2.4	23:52 10.7	
	Tu	15	5:47 4.4	11:42 10.8	17:54 2.3	. . . . . .	
●	W	16	0:17 11.0	6:18 3.8	12:17 11.0	18:27 2.4	
E	Th	17	0:45 11.3	6:47 3.2	12:50 11.2	18:57 2.5	
	F	18	1:10 11.6	7:20 2.8	13:24 11.2	19:27 2.8	
	S	19	1:37 11.6	7:50 2.4	13:58 11.2	20:00 3.1	
	S	20	2:06 11.6	8:22 2.2	14:32 10.8	20:33 3.6	
	M	21	2:37 11.6	9:02 2.2	15:14 10.3	21:11 4.2	
	Tu	22	3:15 11.3	9:47 2.3	16:05 9.8	21:57 4.9	
	W	23	3:56 11.0	10:40 2.6	17:06 9.3	22:50 5.5	
N ☽	Th	24	4:48 10.7	11:44 2.8	18:22 8.9	. . . . . .	
	F	25	0:02 6.0	6:00 10.4	13:00 2.8	19:47 9.1	
	S	26	1:28 6.1	7:22 10.3	14:13 2.7	20:58 9.7	
	S	27	2:47 5.5	8:41 10.6	15:20 2.3	21:54 10.5	
	M	28	3:51 4.5	9:52 11.2	16:15 1.9	22:42 11.4	
P	Tu	29	4:46 3.4	10:50 11.8	17:05 1.6	23:25 12.1	
E	W	30	5:34 2.3	11:42 12.3	17:52 1.5	. . . . . .	
○	Th	31	0:06 12.6	6:17 1.5	12:30 12.6	18:37 1.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Sitka Standard, 135th Meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a.m.), all greater are in the afternoon (p.m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:47	7:01	13:15	19:18		S	1	0:58	7:27	13:52	19:38		W	1	1:52	8:32	15:10	20:50
			12.9	1.0	12.5	1.9				12.8	0.2	11.5	3.8				11.8	0.7	10.8	5.4
	S	2	1:27	7:45	14:00	20:00		M	2	1:38	8:10	14:37	20:22		Th	2	2:33	9:12	15:54	21:40
			13.0	0.8	12.1	2.5				12.5	0.4	11.1	4.4				11.1	1.8	10.6	5.7
	S	3	2:06	8:30	14:48	20:44	S	Tu	3	2:17	8:54	15:26	21:10		F	3	3:16	9:54	16:40	22:35
			12.7	0.9	11.5	3.4				12.0	0.9	10.6	5.0				10.4	2.0	10.2	6.0
	M	4	2:48	9:17	15:38	21:30		W	4	3:00	9:38	16:18	22:02		S	4	4:02	10:35	17:27	23:32
			12.2	1.3	10.7	4.3				11.8	1.5	10.2	5.6				9.6	2.7	10.2	6.1
	Tu	5	3:30	10:07	16:35	22:22		Th	5	3:47	10:38	17:14	23:04	A	S	5	4:57	11:20	18:14	. . .
			11.5	1.9	10.0	5.2				10.5	2.2	9.8	6.2	☾			8.9	3.4	10.1	. . .
S	W	6	4:18	11:04	17:42	23:25		F	6	4:38	11:22	18:15	. . .		M	6	0:34	6:00	12:13	19:02
			10.7	2.5	9.4	6.0				9.6	2.9	9.7	. . .				6.0	8.4	4.0	10.1
☾	Th	7	5:15	12:05	18:57	. . .	☾	S	7	0:15	5:44	12:17	19:15	E	Tu	7	1:30	7:14	13:12	19:46
			9.8	3.2	9.1	. . .				6.3	9.0	3.5	9.6				5.5	8.2	4.5	10.2
	F	8	0:42	6:27	13:15	20:12	A	S	8	1:27	7:00	13:18	20:10		W	8	2:22	8:23	14:10	20:30
			6.4	9.2	3.5	9.2				6.2	8.7	4.0	9.8				4.8	8.4	4.8	10.6
	S	9	2:05	7:46	14:20	21:13		M	9	2:30	8:12	14:15	20:55		Th	9	3:12	9:26	15:02	21:12
			6.4	9.0	3.7	9.5				5.7	8.5	4.2	10.2				4.0	8.8	5.1	11.0
A	S	10	3:12	9:00	15:17	21:57	E	Tu	10	3:18	9:15	15:10	21:34		F	10	3:57	10:20	15:53	21:56
			6.0	9.0	3.7	10.0				5.0	8.7	4.3	10.5				3.0	9.1	5.1	11.4
	M	11	4:02	9:54	16:04	22:34		W	11	3:59	10:06	15:57	22:09		S	11	4:40	11:09	16:42	22:40
			5.3	9.5	3.6	10.4				4.2	9.3	4.3	10.9				1.9	9.7	5.0	12.0
	Tu	12	4:42	10:40	16:42	23:00		Th	12	4:34	10:50	16:39	22:42		S	12	5:23	11:55	17:28	23:21
			4.5	9.9	3.5	10.8				3.3	9.8	4.3	11.3				1.0	10.3	5.0	12.4
E	W	13	5:15	11:20	17:22	23:35		F	13	5:10	11:30	17:17	23:18	●	M	13	6:03	12:38	18:14	. . .
			3.7	10.3	3.3	11.1				2.3	10.2	4.3	11.8				0.2	10.8	4.8	. . .
	Th	14	5:45	11:55	17:56	. . .		S	14	5:47	12:10	17:55	23:52	N	Tu	14	0:04	6:47	13:21	18:59
			3.0	10.8	3.3	. . .				1.5	10.6	4.4	12.1				12.7	—0.2	11.1	4.7
●	F	15	0:02	6:15	12:30	18:27	●	S	15	6:24	12:50	18:34	. . .		W	15	0:47	7:30	14:07	19:47
			11.5	2.3	11.0	3.3				0.8	10.9	4.4	. . .				12.7	—0.4	11.3	4.7
	S	16	0:30	6:48	13:04	19:02		M	16	0:17	7:05	13:34	19:14		Th	16	1:33	8:14	14:52	20:36
			11.8	1.7	11.1	3.5				12.3	0.4	11.0	4.5				12.5	—0.2	11.4	4.7
	S	17	1:00	7:22	13:43	19:36	N	Tu	17	1:07	7:43	14:17	20:00	P	F	17	2:20	9:00	15:40	21:32
			11.9	1.3	11.1	3.9				12.4	0.2	10.9	4.7				12.0	0.2	11.4	4.7
	M	18	1:32	8:00	14:26	20:13		W	18	1:47	8:27	15:05	20:47		S	18	3:13	9:48	16:29	22:30
			12.0	1.1	10.9	4.3				12.2	0.4	10.9	5.0				11.4	0.9	11.4	4.7
	Tu	19	2:07	8:42	15:10	20:55		Th	19	2:30	9:14	15:57	21:40		S	19	4:12	10:40	17:22	23:35
			11.9	1.1	10.5	4.8				11.8	0.7	10.8	5.3				10.7	1.8	11.4	4.5
N	W	20	2:47	9:28	16:01	21:45		F	20	3:22	10:05	16:50	22:44	☽ E	M	20	5:22	11:36	18:15	. . .
			11.6	1.4	10.2	5.3				11.2	1.2	10.7	5.5				9.9	2.7	11.4	. . .
	Th	21	3:32	10:20	17:02	22:45		S	21	4:20	11:02	17:47	23:52		Tu	21	0:40	6:38	12:42	19:12
			11.1	1.9	9.9	5.7				10.5	1.9	10.7	5.3				4.2	9.3	3.6	11.4
☽	F	22	4:30	11:23	18:08	. . .	☽ P	S	22	5:33	12:03	18:48	. . .		W	22	1:48	8:00	13:47	20:09
			10.5	2.3	9.7	. . .				9.9	2.6	10.7	. . .				3.7	9.2	4.2	11.5
	S	23	0:00	5:44	12:31	19:18		M	23	1:06	6:55	13:10	19:48		Th	23	2:55	9:17	14:51	21:03
			5.8	10.0	2.7	9.8				4.9	9.5	3.2	11.0				3.0	9.3	4.7	11.7
	S	24	1:22	7:08	13:42	20:23	E	Tu	24	2:12	8:16	14:22	20:43		F	24	3:52	10:21	15:50	21:56
			5.5	10.0	2.9	10.4				4.2	9.5	3.6	11.3				2.2	9.6	5.0	11.9
	M	25	2:35	8:31	14:48	21:18		W	25	3:12	9:27	15:20	21:34		S	25	4:44	11:18	16:44	22:44
			4.8	10.0	3.0	11.0				3.3	10.0	3.8	11.8				1.3	10.0	5.0	12.2
P E	Tu	26	3:32	9:40	15:50	22:07		Th	26	4:08	10:28	16:15	22:21		S	26	5:30	12:07	17:34	23:29
			3.7	10.5	3.1	11.6				2.3	10.3	4.0	12.2				0.7	10.4	5.1	12.2
	W	27	4:25	10:38	16:41	22:53		F	27	4:59	11:23	17:04	23:06	S ○	M	27	6:14	12:52	18:21	. . .
			2.7	11.2	2.8	12.2				1.4	10.6	4.0	12.5				0.4	10.7	5.1	. . .
	Th	28	5:12	11:30	17:29	23:35	○	S	28	5:43	12:13	17:50	23:50		Tu	28	0:12	6:54	13:33	19:05
			1.7	11.6	2.9	12.6				0.6	10.8	4.3	12.6				12.2	0.3	10.8	5.2
○	F	29	6:00	12:18	18:12	. . .		S	29	6:27	13:00	18:34	. . .		W	29	0:52	7:32	14:10	19:47
			0.9	11.8	3.0	. . .				0.2	10.9	4.5	. . .				12.0	0.4	10.7	5.3
	S	30	0:17	6:42	13:05	18:55	S	M	30	0:32	7:11	13:44	19:20		Th	30	1:32	8:07	14:47	20:30
			12.9	0.4	11.8	3.4				12.5	0.1	11.0	4.8				11.6	0.8	10.7	5.3
								Tu	31	1:12	7:51	14:27	20:03							
										12.3	0.3	10.9	5.2							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Sitka Standard, 135th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:10 11.1	8:43 1.3	15:22 10.7	21:12 5.4
A	S	2	2:48 10.4	9:18 2.0	16:00 10.6	21:57 5.5
	S	3	3:25 9.8	9:55 2.6	16:37 10.5	22:44 5.5
E	M	4	4:14 9.2	10:32 3.3	17:15 10.5	23:31 5.4
☾	Tu	5	5:11 8.7	11:17 4.0	17:52 10.4	. . . . . .
	W	6	0:25 5.1	6:15 8.3	12:08 4.7	18:38 10.5
	Th	7	1:28 4.5	7:32 8.2	13:07 5.2	19:23 10.7
	F	8	2:28 3.7	8:45 8.3	14:12 5.5	20:22 11.0
	S	9	3:21 2.7	9:53 8.8	15:12 5.5	21:16 11.5
	S	10	4:12 1.7	10:47 9.6	16:12 5.3	22:10 12.1
N	M	11	5:00 0.7	11:36 10.3	17:06 5.0	22:59 12.5
●	Tu	12	5:47 0.0	12:22 10.8	17:56 4.7	23:48 12.8
	W	13	6:28 —0.4	13:04 11.4	18:45 4.4	. . . . . .
P	Th	14	0:36 12.9	7:14 —0.5	13:47 11.8	19:32 4.0
	F	15	1:24 12.8	7:59 —0.3	14:30 12.0	20:22 3.8
	S	16	2:14 12.4	8:44 0.3	15:13 12.0	21:14 3.7
E	S	17	3:07 11.7	9:30 1.0	16:00 12.0	22:10 3.7
	M	18	4:02 10.9	10:20 2.0	16:49 11.9	23:07 3.7
☽	Tu	19	5:07 10.0	11:13 3.1	17:40 11.5	. . . . . .
	W	20	0:13 3.7	6:20 9.4	12:12 4.1	18:36 11.3
	Th	21	1:25 3.5	7:43 8.9	13:20 5.0	19:37 11.2
	F	22	2:35 3.0	9:06 8.8	14:31 5.5	20:40 11.2
	S	23	3:37 2.3	10:15 9.2	15:35 5.7	21:37 11.4
S	S	24	4:32 1.7	11:12 9.7	16:33 5.6	22:27 11.6
	M	25	5:17 1.2	11:56 10.1	17:25 5.5	23:14 11.7
	Tu	26	5:57 0.9	12:38 10.5	18:08 5.3	23:56 11.7
○	W	27	6:33 0.7	13:14 10.7	18:49 5.1	. . . . . .
	Th	28	0:37 11.6	7:09 0.9	13:46 10.8	19:27 5.0
	F	29	1:14 11.4	7:42 1.2	14:14 10.9	20:03 4.8
A	S	30	1:50 11.0	8:12 1.6	14:43 10.9	20:40 4.7
E	S	31	2:22 10.6	8:43 2.2	15:13 10.9	21:16 4.6

AUGUST.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	M	1	3:00 10.1	9:16 2.8	15:43 10.8	21:53 4.6
	Tu	2	3:42 9.7	9:51 3.5	16:15 10.8	22:37 4.4
	W	3	4:30 9.1	10:30 4.2	16:54 10.6	23:32 4.3
☾	Th	4	5:27 8.5	11:16 5.0	17:41 10.6	. . . . . .
	F	5	0:34 4.0	6:40 8.1	12:16 5.5	18:37 10.6
	S	6	1:40 3.5	8:07 8.3	13:31 5.9	19:42 10.9
	S	7	2:50 2.7	9:24 8.7	14:45 5.9	20:47 11.2
N	M	8	3:45 1.8	10:23 9.6	15:50 5.6	21:47 11.8
	Tu	9	4:38 1.0	11:12 10.5	16:48 4.8	22:43 12.5
	W	10	5:26 0.2	11:57 11.2	17:40 4.1	23:35 12.8
●	Th	11	6:10 —0.1	12:40 11.8	18:30 3.5	. . . . . .
P	F	12	0:27 13.0	6:54 —0.2	13:20 12.2	19:15 2.9
	S	13	1:15 13.0	7:37 0.1	14:01 12.6	20:02 2.5
E	S	14	2:05 12.5	8:20 0.6	14:42 12.6	20:52 2.4
	M	15	2:54 11.9	9:06 1.6	15:26 12.4	21:41 2.5
	Tu	16	3:50 11.1	9:56 2.6	16:12 11.9	22:40 2.8
☽	W	17	4:48 10.2	10:47 3.8	17:04 11.5	23:44 3.0
	Th	18	6:00 9.3	11:45 4.8	18:02 11.0	. . . . . .
	F	19	0:55 3.2	7:27 8.8	12:56 5.6	19:08 10.7
S	S	20	2:10 3.0	8:54 8.8	14:17 6.0	20:18 10.6
	S	21	3:17 2.7	10:02 9.3	15:27 6.1	21:22 10.7
	M	22	4:14 2.2	10:55 9.9	16:27 5.6	22:16 10.8
	Tu	23	4:57 1.8	11:36 10.3	17:14 5.2	23:02 11.2
	W	24	5:35 1.6	12:12 10.6	17:54 4.8	23:45 11.3
○	Th	25	6:10 1.6	12:40 11.0	18:28 4.4	. . . . . .
A	F	26	0:24 11.4	6:42 1.6	13:07 11.1	19:02 4.1
	S	27	0:57 11.2	7:12 1.9	13:33 11.2	19:32 3.8
E	S	28	1:28 11.0	7:41 2.3	14:00 11.3	20:05 3.6
	M	29	2:03 10.8	8:12 2.8	14:25 11.3	20:36 3.4
	Tu	30	2:37 10.5	8:43 3.4	14:55 11.0	21:11 3.3
	W	31	3:15 10.0	9:18 3.9	15:28 10.9	21:54 3.3

SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	3:57 9.5	9:57 4.6	16:07 10.7	22:48 3.4
☾	F	2	4:57 8.9	10:46 5.2	16:55 10.6	23:47 3.5
	S	3	6:11 8.6	11:50 5.8	17:57 10.4	. . . . . .
N	S	4	1:00 3.2	7:37 8.6	13:09 6.1	19:10 10.5
	M	5	2:12 2.8	8:56 9.1	14:33 5.8	20:26 10.8
	Tu	6	3:16 2.2	9:57 10.0	15:37 5.2	21:34 11.4
	W	7	4:14 1.5	10:45 10.8	16:34 4.2	22:32 12.0
	Th	8	5:02 0.9	11:28 11.6	17:25 3.2	23:27 12.6
P ●	F	9	5:49 0.6	12:09 12.3	18:10 2.3	. . . . . .
E	S	10	0:16 12.9	6:30 0.6	12:47 12.9	18:58 1.6
	S	11	1:04 12.9	7:15 0.9	13:28 13.1	19:40 1.3
	M	12	1:52 12.7	8:00 1.5	14:10 12.9	20:27 1.3
	Tu	13	2:39 12.0	8:44 2.3	14:52 12.5	21:17 1.5
	W	14	3:30 11.1	9:30 3.4	15:37 12.0	22:10 2.0
	Th	15	4:30 10.2	10:22 4.4	16:27 11.2	23:12 2.5
☽	F	16	5:40 9.5	11:25 5.4	17:27 10.6	. . . . . .
S	S	17	0:22 2.9	7:05 9.0	12:40 6.1	18:38 10.0
	S	18	1:36 3.1	8:30 9.1	14:06 6.2	19:57 9.8
	M	19	2:45 3.0	9:36 9.5	15:20 5.9	21:05 9.8
	Tu	20	3:42 2.9	10:25 10.1	16:15 5.3	22:02 10.2
	W	21	4:28 2.7	11:02 10.6	16:57 4.7	22:50 10.5
A	Th	22	5:06 2.5	11:33 10.9	17:32 4.2	23:31 10.8
	F	23	5:40 2.5	12:00 11.2	18:05 3.6	. . . . . .
○ E	S	24	0:05 11.0	6:15 2.6	12:26 11.4	18:33 3.1
	S	25	0:38 11.1	6:44 2.8	12:54 11.4	19:05 2.7
	M	26	1:11 11.2	7:12 3.0	13:20 11.5	19:32 2.3
	Tu	27	1:42 11.0	7:42 3.4	13:46 11.5	20:02 2.2
	W	28	2:14 10.6	8:14 3.9	14:15 11.5	20:42 2.2
	Th	29	2:55 10.3	8:50 4.5	14:48 11.2	21:24 2.3
	F	30	3:44 9.8	9:33 5.1	15:30 11.0	22:14 2.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Sitka Standard, 135th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	4:42	10:25	16:18	23:13	
			9.4	5.7	10.5	2.9	
☾	S	2	5:52	11:35	17:25	. . .	
			9.0	6.1	10.1	. . .	
	M	3	0:24	7:12	13:00	18:52	
			3.0	9.2	6.2	10.0	
	Tu	4	1:42	8:25	14:20	20:13	
			2.9	9.6	5.5	10.2	
	W	5	2:48	9:22	15:25	21:23	
			2.7	10.5	4.5	10.8	
	Th	6	3:46	10:10	16:18	22:22	
			2.3	11.2	3.4	11.5	
P	F	7	4:36	10:55	17:06	23:16	
			2.0	12.1	2.2	12.0	
E	S	8	5:25	11:37	17:49	. . .	
●			1.8	12.6	1.3	. . .	
	S	9	0:02	6:10	12:18	18:34	
			12.5	1.7	13.1	0.7	
	M	10	0:50	6:52	12:58	19:20	
			12.5	2.0	13.2	0.3	
	Tu	11	1:38	7:35	13:40	20:05	
			12.2	2.6	13.0	0.4	
	W	12	2:25	8:20	14:22	20:52	
			11.7	3.3	12.5	0.7	
	Th	13	3:15	9:08	15:05	21:43	
			11.0	4.2	11.8	1.3	
S	F	14	4:14	9:58	15:54	22:40	
			10.3	5.1	11.0	2.1	
☽	S	15	5:22	11:02	16:53	23:43	
			9.8	5.8	10.2	2.8	
	S	16	6:34	12:24	18:06	. . .	
			9.5	6.2	9.5	. . .	
	M	17	0:52	7:50	13:47	19:28	
			8.3	9.5	6.2	9.0	
	Tu	18	2:00	8:52	14:57	20:44	
			3.5	9.8	5.7	9.2	
	W	19	3:03	9:38	15:50	21:44	
			3.7	10.1	5.0	9.4	
A	Th	20	3:50	10:17	16:30	22:27	
			3.7	10.6	4.3	9.8	
E	F	21	4:30	10:48	17:00	23:08	
			3.6	10.9	3.6	10.2	
	S	22	5:07	11:16	17:33	23:43	
			3.5	11.2	3.0	10.6	
	S	23	5:40	11:44	18:00	. . .	
			3.6	11.5	2.3	. . .	
○	M	24	0:15	6:10	12:14	18:32	
			10.8	3.7	11.7	1.7	
	Tu	25	0:50	6:42	12:40	19:07	
			10.9	3.9	11.9	1.3	
	W	26	1:27	7:16	13:10	19:40	
			10.8	4.2	11.9	1.1	
	Th	27	2:05	7:52	13:43	20:19	
			10.8	4.5	11.8	1.1	
	F	28	2:47	8:32	14:20	21:02	
			10.5	4.9	11.6	1.4	
N	S	29	3:37	9:19	15:04	21:58	
			10.2	5.4	11.2	1.7	
	S	30	4:32	10:15	15:58	22:50	
			9.9	5.8	10.6	2.3	
☾	M	31	5:35	11:28	17:07	23:54	
			9.8	6.0	10.0	2.7	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	6:42	12:48	18:32	. . .	
			9.9	5.7	9.7	. . .	
	W	2	1:05	7:50	14:05	19:57	
			8.1	10.3	5.0	9.7	
	Th	3	2:14	8:48	15:08	21:12	
			8.2	11.0	3.9	10.1	
E	F	4	3:20	9:37	15:59	22:12	
			8.1	11.5	2.8	10.9	
P	S	5	4:11	10:23	16:47	23:05	
			8.0	12.2	1.7	11.3	
	S	6	5:00	11:05	17:35	23:55	
			8.0	12.8	0.7	11.7	
●	M	7	5:46	11:47	18:18	. . .	
			8.1	13.1	0.1	. . .	
	Tu	8	0:43	6:30	12:32	19:02	
			11.8	3.4	13.2	—0.2	
	W	9	1:30	7:14	13:12	19:48	
			11.7	3.8	13.0	—0.2	
S	Th	10	2:17	8:00	13:57	20:32	
			11.4	4.3	12.4	0.3	
	F	11	3:06	8:49	14:40	21:19	
			11.0	4.9	11.7	1.0	
	S	12	3:58	9:42	15:25	22:07	
			10.5	5.4	10.9	1.7	
	S	13	4:55	10:42	16:20	23:00	
			10.1	5.9	9.9	2.6	
☽	M	14	5:55	11:53	17:26	23:59	
			9.9	6.2	9.1	3.3	
	Tu	15	6:59	13:11	18:42	. . .	
			9.8	6.1	8.6	. . .	
A	W	16	1:00	7:55	14:20	20:00	
			4.0	10.0	5.7	8.3	
	Th	17	2:00	8:40	15:11	21:05	
			4.8	10.3	5.0	8.6	
E	F	18	2:57	9:22	15:52	21:59	
			4.6	10.5	4.2	9.0	
	S	19	3:56	9:59	16:28	22:44	
			4.6	10.8	3.4	9.5	
	S	20	4:25	10:30	17:02	23:22	
			4.6	11.2	2.5	9.8	
	M	21	5:02	11:04	17:35	. . .	
			4.6	11.6	1.6	. . .	
○	Tu	22	0:00	5:40	11:37	18:08	
			10.3	4.6	12.0	1.0	
	W	23	0:37	6:17	12:10	18:47	
			10.5	4.7	12.2	0.6	
	Th	24	1:16	6:57	12:45	19:25	
			10.9	4.7	12.3	0.3	
N	F	25	1:57	7:36	13:23	20:03	
			10.9	4.8	11.7	0.3	
	S	26	2:40	8:22	14:07	20:50	
			11.0	5.1	11.9	0.5	
	S	27	3:27	9:10	14:52	21:35	
			10.9	5.2	11.3	1.1	
	M	28	4:17	10:08	15:47	22:28	
			10.7	5.4	10.7	1.8	
☾	Tu	29	5:12	11:17	16:52	23:26	
			10.7	5.4	9.9	2.5	
	W	30	6:10	12:26	18:13	. . .	
			10.7	5.1	9.4	. . .	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	Th	1	0:31	7:10	13:36	19:38	
			3.2	11.0	4.5	9.2	
P	F	2	1:42	8:08	14:44	20:57	
			3.7	11.2	3.5	9.6	
	S	3	2:47	9:02	15:42	22:04	
			4.1	11.7	2.5	10.0	
	S	4	3:45	9:55	16:35	23:00	
			4.1	12.1	1.4	10.4	
	M	5	4:36	10:40	17:22	23:52	
			4.2	12.6	0.6	10.8	
●	Tu	6	5:27	11:27	18:08	. . .	
			4.2	12.9	0.0	. . .	
	W	7	0:40	6:12	12:08	18:50	
			11.0	4.3	12.9	—0.3	
S	Th	8	1:26	6:57	12:52	19:31	
			11.1	4.6	12.7	—0.2	
	F	9	2:08	7:42	13:35	20:14	
			11.1	4.9	12.2	0.1	
	S	10	2:52	8:28	14:17	20:53	
			11.0	5.1	11.6	0.7	
	S	11	3:33	9:20	15:00	21:36	
			10.8	5.4	10.8	1.5	
	M	12	4:20	10:12	15:45	22:18	
			10.6	5.7	9.9	2.3	
	Tu	13	5:06	11:12	16:37	23:02	
			10.4	5.9	9.1	3.2	
☽ A	W	14	5:55	12:15	17:40	23:54	
			10.2	5.9	8.4	4.0	
E	Th	15	6:45	13:15	18:52	. . .	
			10.1	5.6	7.9	. . .	
	F	16	0:53	7:32	14:12	20:10	
			4.6	10.2	5.2	8.0	
	S	17	1:52	8:18	15:05	21:20	
			5.1	10.4	4.3	8.2	
	S	18	2:48	9:02	15:50	22:14	
			5.3	10.7	3.3	8.7	
	M	19	3:40	9:42	16:31	23:02	
			5.4	11.1	2.3	9.2	
	Tu	20	4:27	10:25	17:10	23:44	
			5.4	11.5	1.3	9.8	
	W	21	5:12	11:07	17:50	. . .	
			5.2	12.1	0.6	. . .	
○ N	Th	22	0:25	5:55	11:47	18:30	
			10.7	5.1	12.4	0.0	
	F	23	1:04	6:40	12:30	19:11	
			11.0	4.9	12.6	—0.2	
	S	24	1:45	7:24	13:12	19:52	
			11.2	4.7	12.6	—0.2	
	S	25	2:27	8:11	13:58	20:34	
			11.4	4.5	12.2	0.1	
	M	26	3:10	9:00	14:47	21:19	
			11.4	4.5	11.7	0.7	
P	Tu	27	3:55	9:55	15:40	22:07	
			11.4	4.5	11.0	1.6	
	W	28	4:44	10:55	16:42	23:00	
			11.4	4.4	10.2	2.5	
E ☾	Th	29	5:35	11:56	17:57	. . .	
			11.3	4.3	9.4	. . .	
	F	30	0:00	6:30	13:08	19:20	
			3.5	11.2	3.9	9.1	
	S	31	1:08	7:32	14:22	20:43	
			4.3	11.3	3.3	9.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from a plane 2 feet below Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 7.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Sitka Standard, 135th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	4:46	11:00	17:47	. . .	
			2.8	10.1	—1.3	. . .	
N ○	S	2	0:18	5:36	11:48	18:32	
			7.5	2.6	10.6	—1.9	
	S	3	1:02	6:24	12:34	19:16	
			8.0	2.3	10.8	—2.2	
P	M	4	1:45	7:12	13:20	20:00	
			8.3	2.0	10.8	—2.2	
	Tu	5	2:30	8:00	14:07	20:43	
			8.6	1.8	10.4	—1.9	
	W	6	3:15	8:51	14:57	21:29	
			8.8	1.8	9.9	—1.2	
	Th	7	4:00	9:47	15:52	22:16	
			8.8	1.9	9.0	—0.4	
E	F	8	4:48	10:50	16:52	23:10	
			8.9	2.0	8.1	0.6	
☾	S	9	5:45	12:00	18:02	. . .	
			8.8	2.1	7.2	. . .	
	S	10	0:05	6:43	13:16	19:22	
			1.5	8.7	2.1	6.5	
	M	11	1:07	7:46	14:38	20:50	
			2.3	8.6	1.8	6.1	
	Tu	12	2:12	8:48	15:49	22:05	
			3.0	8.7	1.2	6.1	
	W	13	3:18	9:43	16:45	23:05	
			3.3	9.0	0.6	6.5	
	Th	14	4:16	10:35	17:32	23:53	
			3.4	9.2	0.1	6.8	
S	F	15	5:06	11:18	18:10	. . .	
			3.3	9.3	—0.3	. . .	
	S	16	0:35	5:49	11:55	18:45	
			7.1	3.3	9.4	—0.6	
●	S	17	1:10	6:26	12:31	19:15	
			7.3	3.1	9.5	—0.6	
	M	18	1:42	7:00	13:07	19:42	
			7.5	2.9	9.3	—0.5	
A	Tu	19	2:12	7:35	13:40	20:12	
			7.7	2.8	9.1	—0.3	
	W	20	2:40	8:10	14:13	20:40	
			7.8	2.7	8.8	—0.1	
	Th	21	3:08	8:47	14:48	21:12	
			8.0	2.6	8.3	0.3	
E	F	22	3:40	9:28	15:27	21:48	
			8.1	2.5	7.8	0.8	
	S	23	4:15	10:16	16:12	22:27	
			8.2	2.5	7.3	1.4	
	S	24	4:56	11:10	17:08	23:09	
			8.2	2.5	6.6	2.0	
☽	M	25	5:42	12:14	18:16	. . .	
			8.2	2.4	6.0	. . .	
	Tu	26	0:02	6:38	13:22	19:42	
			2.6	8.3	2.1	5.6	
	W	27	1:02	7:41	14:39	21:08	
			3.1	8.4	1.5	5.6	
	Th	28	2:14	8:46	15:47	22:20	
			3.4	8.8	0.7	6.1	
N	F	29	3:26	9:49	16:45	23:15	
			3.3	9.3	—0.2	6.8	
	S	30	4:30	10:44	17:33	. . .	
			3.1	9.9	—1.0	. . .	
	S	31	0:02	5:25	11:35	18:18	
			7.6	2.5	10.4	—1.7	

FEBRUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
○ P	M	1	0:46	6:15	12:25	19:00	
			8.2	1.9	10.8	—2.0	
	Tu	2	1:27	7:08	13:12	19:42	
			8.8	1.4	10.8	—1.9	
	W	3	2:08	7:52	14:00	20:24	
			9.2	1.0	10.5	—1.5	
E	Th	4	2:50	8:40	14:48	21:05	
			9.5	0.8	9.8	—1.0	
	F	5	3:30	9:32	15:38	21:50	
			9.6	0.9	9.0	—0.1	
	S	6	4:14	10:27	16:33	22:37	
			9.5	1.2	8.2	0.9	
☾	S	7	5:03	11:28	17:36	23:28	
			9.2	1.5	7.1	1.9	
	M	8	6:00	12:40	18:52	. . .	
			8.8	1.8	6.2	. . .	
	Tu	9	0:25	7:02	14:04	20:24	
			2.8	8.4	1.9	5.6	
	W	10	1:32	8:11	15:25	21:49	
			3.5	8.3	1.6	4.8	
S	Th	11	2:52	9:17	16:27	22:51	
			3.8	8.3	1.1	6.2	
	F	12	4:00	10:15	17:14	23:39	
			3.8	8.5	0.7	6.7	
	S	13	4:57	11:01	17:52	. . .	
			3.7	8.7	0.3	. . .	
	S	14	0:15	5:41	11:44	18:24	
			7.1	3.3	8.9	0.1	
A	M	15	0:49	6:17	12:20	18:51	
			7.5	2.9	9.0	0.0	
●	Tu	16	1:16	6:48	12:54	19:17	
			7.8	2.6	9.0	—0.1	
	W	17	1:40	7:20	13:25	19:42	
			8.0	2.1	9.0	0.0	
E	Th	18	2:05	7:52	13:57	20:14	
			8.3	1.8	8.8	0.2	
	F	19	2:32	8:25	14:32	20:43	
			8.5	1.6	8.5	0.6	
	S	20	3:00	9:02	15:08	21:15	
			8.7	1.5	8.1	0.8	
	S	21	3:33	9:46	15:52	21:50	
			8.7	1.4	7.6	1.5	
	M	22	4:12	10:34	16:42	22:32	
			8.6	1.4	6.9	2.2	
	Tu	23	4:53	11:32	17:45	23:22	
			8.5	1.6	6.1	2.8	
☽	W	24	5:54	12:41	19:10	. . .	
			8.3	1.6	5.6	. . .	
N	Th	25	0:28	7:03	14:04	20:44	
			3.3	8.3	1.4	5.6	
	F	26	1:50	8:18	15:18	22:00	
			3.5	8.4	0.9	6.2	
	S	27	3:12	9:28	16:21	22:54	
			3.5	8.8	0.3	7.1	
	S	28	4:19	10:30	17:15	23:42	
			2.9	9.4	—0.5	7.9	
	M	29	5:17	11:26	17:59	. . .	
			2.1	10.0	—1.0	. . .	

MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
P ○	Tu	1	0:22	6:05	12:17	18:41	
			8.7	1.3	10.4	—1.2	
E	W	2	1:02	6:58	13:05	19:21	
			9.4	0.6	10.5	—1.2	
	Th	3	1:40	7:38	13:50	20:02	
			9.9	0.0	10.2	—0.9	
	F	4	2:18	8:24	14:36	20:41	
			10.1	—0.2	9.7	—0.3	
	S	5	2:58	9:11	15:24	21:23	
			10.0	0.0	9.0	0.5	
	S	6	3:40	10:00	16:15	22:05	
			9.7	0.4	8.0	1.4	
	M	7	4:24	10:55	17:12	22:52	
			9.3	0.9	6.9	2.3	
☾	Tu	8	5:15	12:00	18:25	23:47	
			8.7	1.4	6.1	3.2	
S	W	9	6:15	13:21	19:57	. . .	
			8.2	1.8	5.6	. . .	
	Th	10	1:00	7:30	14:46	21:28	
			3.8	7.7	1.9	5.7	
	F	11	2:34	8:48	15:52	22:25	
			4.1	7.5	1.7	6.2	
	S	12	3:48	9:52	16:42	23:10	
			4.0	7.7	1.4	6.8	
A	S	13	4:45	10:45	17:21	23:46	
			3.5	7.9	1.1	7.2	
	M	14	5:25	11:25	17:58	. . .	
			3.0	8.2	0.9	. . .	
	Tu	15	0:14	5:58	12:02	18:20	
			7.7	2.4	8.5	0.7	
●	W	16	0:37	6:29	12:36	18:46	
			8.1	1.8	8.7	0.6	
E	Th	17	1:02	6:59	13:09	19:14	
			8.5	1.3	8.7	0.6	
	F	18	1:26	7:29	13:42	19:42	
			8.7	0.8	8.7	0.8	
	S	19	1:55	8:03	14:16	20:12	
			8.9	0.6	8.5	1.0	
	S	20	2:22	8:38	14:54	20:47	
			9.0	0.3	8.2	1.4	
	M	21	2:58	9:20	15:37	21:22	
			9.1	0.3	7.6	1.9	
	Tu	22	3:35	10:07	16:27	22:07	
			9.0	0.5	7.0	2.5	
	W	23	4:22	11:02	17:30	23:00	
			8.7	0.9	6.4	3.0	
N ☽	Th	24	5:21	12:10	18:50	. . .	
			8.3	1.2	6.0	. . .	
	F	25	0:12	6:34	13:28	20:22	
			3.6	8.0	1.3	6.1	
	S	26	1:40	7:58	14:48	21:32	
			3.7	8.0	1.1	6.7	
	S	27	3:05	9:14	15:55	22:27	
			3.4	8.2	0.8	7.5	
	M	28	4:14	10:21	16:47	23:10	
			2.5	8.8	0.3	8.3	
P	Tu	29	5:06	11:17	17:33	23:52	
			1.5	9.3	—0.1	9.2	
E	W	30	5:54	12:07	18:15	. . .	
			0.5	9.7	—0.3	. . .	
○	Th	31	0:30	6:38	12:54	18:56	
			9.8	—0.3	9.9	—0.2	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	1:08	7:22	13:38	19:35		S	1	1:17	7:48	14:11	19:44		W	1	2:08	8:52	15:25	20:43
			10.1	—0.7	9.8	0.1				10.5	—1.3	8.5	1.6				9.6	—0.7	7.5	3.0
	S	2	1:47	8:03	14:22	20:13		M	2	1:55	8:30	14:56	20:24		Th	2	2:50	9:34	16:10	21:30
			10.3	—0.9	9.3	0.6				10.3	—1.1	8.1	2.1				8.9	—0.2	7.3	3.3
	S	3	2:26	8:48	15:09	20:51	S	Tu	3	2:35	9:12	15:42	21:04		F	3	3:31	10:12	16:57	22:21
			10.2	—0.7	8.5	1.3				9.8	—0.6	7.5	2.6				8.2	0.4	7.1	3.7
	M	4	3:06	9:35	15:57	21:33		W	4	3:17	10:00	16:35	21:52		S	4	4:20	10:56	17:45	23:27
			9.8	—0.2	7.8	2.0				9.1	0.0	7.0	3.1				7.5	1.1	7.1	3.8
S	Tu	5	3:49	10:26	16:52	22:20		Th	5	4:02	10:47	17:32	22:50	A	S	5	5:15	11:44	18:38	. . .
			9.3	0.4	6.9	2.8				8.3	0.8	6.6	3.6	☾			6.7	1.7	7.2	. . .
	W	6	4:37	11:24	18:00	23:17		F	6	4:57	11:40	18:35	. . .		M	6	0:38	6:22	12:40	19:22
			8.5	1.1	6.2	3.6				7.5	1.3	6.4	. . .				3.8	6.1	2.3	7.3
☾	Th	7	5:37	12:30	19:22	. . .	☾	S	7	0:02	6:02	12:42	19:42	E	Tu	7	1:50	7:37	13:35	20:20
			7.8	1.7	5.9	. . .				4.0	6.8	1.9	6.5				3.5	5.8	2.7	7.6
	F	8	0:33	6:47	13:50	20:41	A	S	8	1:32	7:20	13:47	20:40		W	8	2:50	8:49	14:28	21:02
			4.1	7.2	2.0	6.1				4.0	6.8	2.3	7.0				2.9	6.0	2.9	7.9
	S	9	2:10	8:08	15:00	21:40		M	9	2:50	8:40	14:45	21:25		Th	9	3:39	9:49	15:17	21:42
			4.3	6.8	2.2	6.5				3.6	6.1	2.6	7.3				2.1	6.2	2.9	8.5
A	S	10	3:29	9:22	15:53	22:22	E	Tu	10	3:42	9:40	15:32	22:00		F	10	4:23	10:41	16:05	22:25
			3.9	6.9	2.1	6.9				3.0	6.4	2.5	7.6				1.2	6.6	3.0	9.0
	M	11	4:23	10:18	16:35	22:55		W	11	4:23	10:29	16:15	22:35		S	11	5:06	11:28	16:50	23:06
			3.3	7.1	1.9	7.4				2.3	6.9	2.4	8.1				0.3	6.9	2.8	9.5
	Tu	12	5:00	11:02	17:07	23:25		Th	12	4:57	11:12	16:52	23:07		S	12	5:46	12:13	17:35	23:47
			2.5	7.6	1.7	8.0				1.4	7.3	2.4	8.7				—0.6	7.4	2.7	10.0
E	W	13	5:32	11:40	17:39	23:53		F	13	5:32	11:52	17:29	23:40	●	M	13	6:26	12:57	18:17	. . .
			1.8	7.9	1.5	8.3				0.6	7.6	2.2	9.3				—1.3	7.7	2.5	. . .
	Th	14	6:02	12:15	18:10	. . .		S	14	6:07	12:30	18:02	. . .	N	Tu	14	0:27	7:08	13:40	19:01
			1.1	8.3	1.4	. . .				—0.2	7.8	2.1	. . .				10.2	—1.6	8.0	2.4
●	F	15	0:21	6:32	12:50	18:40	●	S	15	0:14	6:45	13:10	18:40		W	15	1:10	7:54	14:26	19:47
			8.8	0.5	8.5	1.3				9.7	—0.8	8.0	2.1				10.3	—1.7	8.1	2.4
	S	16	0:50	7:05	13:25	19:10		M	16	0:50	7:23	13:52	19:17		Th	16	1:56	8:38	15:09	20:37
			9.2	—0.1	8.3	1.5				10.0	—1.2	8.1	2.2				10.2	—1.7	8.2	2.5
	S	17	1:20	7:40	14:03	19:41	N	Tu	17	1:27	8:08	14:34	20:00	P	F	17	2:43	9:24	15:57	21:34
			9.5	—0.5	8.3	1.7				10.0	—1.4	7.9	2.4				9.8	—1.2	8.2	2.5
	M	18	1:52	8:20	14:42	20:20		W	18	2:08	8:50	15:20	20:46		S	18	3:37	10:13	16:50	22:37
			9.6	—0.6	8.1	2.0				9.8	—1.2	7.8	2.6				9.0	—0.5	8.2	2.6
	Tu	19	2:28	9:00	15:27	21:00		Th	19	2:53	9:37	16:02	21:38		S	19	4:38	11:05	17:46	23:50
			9.5	—0.5	7.6	2.4				9.5	—0.8	7.5	3.0				8.1	0.3	8.3	2.6
N	W	20	3:10	9:50	16:20	21:47		F	20	3:45	10:30	17:08	22:44	☽	M	20	5:47	12:05	18:45	. . .
			9.2	—0.2	7.1	2.8				8.9	—0.3	7.4	3.2	E			7.4	1.0	8.5	. . .
	Th	21	3:58	10:43	17:20	22:48		S	21	4:46	11:30	18:14	. . .		Tu	21	1:06	7:05	13:07	19:45
			8.8	0.2	6.8	3.3				8.2	0.4	7.5	. . .				2.3	6.9	1.9	8.6
☽	F	22	4:58	11:47	18:32	. . .	☽	S	22	0:02	6:00	12:32	19:20		W	22	2:20	8:28	14:08	20:43
			8.3	0.7	6.5	. . .	P			3.2	7.5	1.0	7.7				2.0	6.6	2.4	8.9
	S	23	0:05	6:14	13:02	19:50		M	23	1:27	7:25	13:40	20:22		Th	23	3:30	9:41	15:08	21:36
			3.6	7.8	1.1	6.8				2.9	7.1	1.6	8.1				1.3	6.7	2.7	9.3
	S	24	1:37	7:42	14:15	20:57	E	Tu	24	2:41	8:47	14:47	21:16		F	24	4:27	10:44	16:04	22:24
			3.5	7.5	1.3	7.3				2.2	7.1	1.9	8.5				0.5	6.7	2.8	9.5
	M	25	3:00	9:02	15:22	21:50		W	25	3:46	9:58	15:42	22:03		S	25	5:16	11:38	16:54	23:09
			2.8	7.7	1.3	8.1				1.4	7.4	1.9	9.1				—0.2	7.0	2.9	9.9
P	Tu	26	4:00	10:10	16:15	22:37		Th	26	4:40	10:56	16:32	22:49		S	26	6:02	12:26	17:39	23:52
E			1.8	8.1	1.1	8.7				0.5	7.7	2.0	9.7				—0.8	7.2	2.9	10.1
	W	27	4:50	11:05	17:02	23:18		F	27	5:28	11:47	17:17	23:31	S	M	27	6:42	13:08	18:20	. . .
			0.8	8.7	1.0	9.5				—0.4	7.9	2.0	10.1	○			—1.1	7.4	2.9	. . .
	Th	28	5:38	11:56	17:47	. . .	☾	S	28	6:11	12:34	18:00	. . .		Tu	28	0:30	7:20	13:48	19:02
			0.7	9.0	1.0	. . .				—1.0	8.0	2.1	. . .				9.9	—1.1	7.5	2.9
○	F	29	0:00	6:29	12:42	18:27		S	29	0:10	6:54	13:17	18:38		W	29	1:10	7:56	14:26	19:42
			10.0	—0.8	9.0	1.1				10.3	—1.3	7.9	2.3				9.8	—1.0	7.5	2.9
	S	30	0:38	7:04	13:27	19:05	S	M	30	0:50	7:34	14:00	19:20		Th	30	1:50	8:28	15:02	20:22
			10.3	—1.2	8.9	1.3				10.3	—1.3	7.9	2.5				9.4	—0.7	7.5	3.0
								Tu	31	1:30	8:15	14:42	20:00							
										10.1	—1.1	7.7	2.7							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:26 8.9	9:08 —0.2	15:38 7.5	21:04 3.1
A	S	2	3:04 8.3	9:37 0.3	16:12 7.6	21:51 3.2
	S	3	3:45 7.6	10:14 0.9	16:52 7.7	22:42 3.3
E	M	4	4:32 7.0	10:55 1.4	17:35 7.7	23:42 3.3
☾	Tu	5	5:27 6.3	11:40 2.0	18:22 7.8	. . . . . .
	W	6	0:45 3.1	6:37 5.9	12:30 2.5	19:12 7.9
	Th	7	1:47 2.7	7:52 5.7	13:27 2.9	20:04 8.1
	F	8	2:55 2.0	9:08 5.6	14:27 3.1	20:56 8.5
	S	9	3:49 1.2	10:13 6.1	15:24 3.2	21:49 9.2
	S	10	4:42 0.3	11:07 6.6	16:20 3.1	22:38 9.7
N	M	11	5:26 —0.6	11:55 7.2	17:13 2.9	23:27 10.1
●	Tu	12	6:10 —1.3	12:41 7.7	18:02 2.6	. . . . . .
	W	13	0:12 10.5	6:54 —1.6	13:24 8.1	18:50 2.4
P	Th	14	1:00 10.5	7:36 —1.9	14:07 8.4	19:40 1.9
	F	15	1:47 10.3	8:22 —1.7	14:50 8.7	20:28 1.7
	S	16	2:35 9.9	9:05 —1.3	15:32 8.9	21:22 1.6
E	S	17	3:28 9.3	9:50 —0.5	16:20 9.0	22:22 1.7
	M	18	4:25 8.4	10:42 0.3	17:11 9.0	23:26 1.8
☽	Tu	19	5:31 7.5	11:35 1.3	18:07 8.9	. . . . . .
	W	20	0:37 1.8	6:44 6.7	12:32 2.1	19:07 8.8
	Th	21	1:55 1.7	8:08 6.1	13:34 2.8	20:09 8.8
	F	22	3:12 1.3	9:29 6.1	14:43 3.2	21:10 9.0
	S	23	4:14 0.7	10:36 6.3	15:43 3.4	22:06 9.2
S	S	24	5:07 0.3	11:29 6.6	16:40 3.4	22:52 9.3
	M	25	5:50 —0.3	12:15 7.1	17:27 3.2	23:37 9.5
○	Tu	26	6:28 —0.5	12:53 7.3	18:10 3.0	. . . . . .
	W	27	0:18 9.5	7:03 —0.6	13:28 7.5	18:49 2.9
	Th	28	0:55 9.4	7:33 —0.5	14:00 7.7	19:25 2.7
	F	29	1:31 9.2	8:02 —0.3	14:30 7.9	20:02 2.5
A	S	30	2:07 8.8	8:30 0.0	15:00 8.0	20:40 2.5
E	S	31	2:40 8.4	9:02 0.4	15:28 8.9	21:20 2.5

AUGUST.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	M	1	3:17 7.8	9:37 0.9	16:02 8.1	22:01 2.5
	Tu	2	4:00 7.2	10:11 1.5	16:40 8.1	22:51 2.5
	W	3	4:50 6.7	10:51 2.0	17:22 8.1	23:48 2.4
☾	Th	4	5:51 6.0	11:37 2.6	18:14 8.1	. . . . . .
	F	5	0:58 2.3	7:07 5.6	12:35 3.1	19:13 8.2
	S	6	2:07 1.9	8:34 5.5	13:45 3.4	20:18 8.3
	S	7	3:15 1.3	9:49 6.0	14:57 3.4	21:22 8.9
N	M	8	4:15 0.4	10:48 6.5	16:02 3.2	22:18 9.5
	Tu	9	5:06 —0.5	11:36 7.3	16:59 2.6	23:12 10.0
	W	10	5:58 —1.1	12:20 8.0	17:52 2.0	. . . . . .
●	Th	11	0:02 10.5	6:35 —1.5	13:02 8.6	18:41 1.4
P	F	12	0:50 10.6	7:18 —1.6	13:42 9.1	19:26 0.9
	S	13	1:37 10.4	7:58 —1.4	14:22 9.5	20:16 0.6
E	S	14	2:28 10.0	8:42 —0.9	15:05 9.7	21:06 0.6
	M	15	3:17 9.3	9:26 —0.1	15:48 9.6	22:00 0.7
	Tu	16	4:00 8.5	10:13 0.8	16:35 9.4	22:58 1.0
☽	W	17	5:10 7.4	11:00 1.6	17:27 9.0	. . . . . .
	Th	18	0:05 1.4	6:22 6.5	11:55 2.6	18:30 8.7
	F	19	1:27 1.5	7:52 5.9	13:04 3.3	19:37 8.4
S	S	20	2:50 1.4	9:17 5.8	14:22 3.7	20:50 8.4
	S	21	3:57 1.1	10:24 6.2	15:36 3.7	21:50 8.6
	M	22	4:50 0.7	11:15 6.6	16:35 3.5	22:42 8.7
	Tu	23	5:32 0.3	11:57 7.2	17:22 3.1	23:26 8.9
	W	24	6:08 0.2	12:30 7.5	18:00 2.7	. . . . . .
○	Th	25	0:04 9.0	6:37 0.2	13:00 7.8	18:35 2.4
A	F	26	0:40 9.0	7:02 0.1	13:26 8.1	19:08 2.0
	S	27	1:16 9.0	7:32 0.2	13:50 8.3	19:38 1.7
E	S	28	1:47 8.7	7:59 0.4	14:07 8.4	20:12 1.6
	M	29	2:20 8.3	8:28 0.8	14:46 8.6	20:46 1.5
	Tu	30	2:53 8.1	8:58 1.2	15:16 8.6	21:30 1.4
	W	31	3:33 7.5	9:32 1.7	15:52 8.5	22:14 1.4

SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	4:22 6.8	10:12 2.2	16:34 8.3	23:04 1.6
☾	F	2	5:22 6.2	10:58 2.8	17:27 8.2	. . . . . .
	S	3	0:12 1.7	6:37 5.7	12:05 3.3	18:33 8.1
N	S	4	1:27 1.6	8:08 5.6	13:22 3.6	19:48 8.1
	M	5	2:45 1.3	9:29 6.1	14:45 3.6	21:01 8.5
	Tu	6	3:50 0.7	10:25 6.9	15:52 3.0	22:06 9.0
	W	7	4:43 0.0	11:12 7.7	16:52 2.2	23:02 9.6
	Th	8	5:30 —0.5	11:52 8.6	17:42 1.3	23:53 10.1
P ●	F	9	6:11 —0.9	12:32 9.3	18:27 0.5	. . . . . .
E	S	10	0:40 10.3	6:55 —0.9	13:11 9.9	19:15 —0.2
	S	11	1:28 10.2	7:36 —0.7	13:51 10.2	19:59 —0.5
	M	12	2:14 9.9	8:17 —0.3	14:30 10.1	20:46 —0.5
	Tu	13	3:00 9.2	8:56 0.5	15:14 9.9	21:33 —0.1
	W	14	3:52 8.2	9:40 1.3	15:57 9.5	22:30 0.4
	Th	15	4:50 7.3	10:28 2.3	16:49 9.0	23:34 0.9
☽ S	F	16	6:02 6.4	11:25 3.0	17:48 8.4	. . . . . .
	S	17	0:52 1.4	7:30 5.9	12:42 3.9	19:02 7.9
	S	18	2:16 1.6	8:57 6.0	14:10 4.0	20:23 7.6
	M	19	3:27 1.5	10:01 6.5	15:32 3.9	21:36 7.6
	Tu	20	4:21 1.3	10:49 7.0	16:30 3.3	22:30 7.9
	W	21	5:02 1.1	11:25 7.4	17:13 2.8	23:13 8.2
A	Th	22	5:36 1.0	11:57 7.9	17:47 2.3	23:49 8.4
	F	23	6:02 0.9	12:20 8.2	18:18 1.6	. . . . . .
○ E	S	24	0:25 8.6	6:30 0.8	12:45 8.6	18:47 1.2
	S	25	0:56 8.6	6:57 0.8	13:10 8.8	19:14 0.8
	M	26	1:27 8.6	7:25 1.0	13:36 8.9	19:46 0.5
	Tu	27	2:00 8.3	7:52 1.3	14:03 9.0	20:20 0.4
	W	28	2:36 8.0	8:25 1.6	14:34 9.0	20:57 0.3
	Th	29	3:15 7.5	8:58 2.1	15:12 8.8	21:42 0.5
	F	30	4:02 7.0	9:42 2.6	15:55 8.6	22:34 0.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	5:00	10:30	16:50	23:37			Tu	1	0:23	7:12	13:02	19:02		E	Th	1	1:02	7:43	14:07	20:10	
			6.5	3.1	8.2	1.2					1.1	6.8	3.5	7.3					1.6	8.0	2.5	6.9	
☾	S	2	6:15	11:40	18:02	. . .			W	2	1:38	8:22	14:27	20:30		P	F	2	2:10	8:42	15:15	21:28	
			6.0	3.6	7.9	. . .					1.4	7.7	2.9	7.3					2.0	8.4	1.6	7.1	
	M	3	0:52	7:42	13:10	19:25			Th	3	2:47	9:20	15:35	21:42			S	3	3:10	9:35	16:17	22:32	
			1.4	6.1	3.7	7.7					1.5	8.0	1.9	7.7					2.1	9.0	0.6	7.3	
	Tu	4	2:14	8:59	14:39	20:46		E	F	4	3:45	10:07	16:27	22:41			S	4	4:05	10:22	17:05	23:25	
			1.3	6.6	3.4	7.9					1.5	8.7	0.9	8.3					2.2	9.6	—0.3	7.7	
	W	5	3:22	9:54	15:47	21:54		P	S	5	4:35	10:51	17:16	23:34			M	5	4:53	11:07	17:51	. . .	
			1.1	7.4	2.5	8.3					1.3	9.5	—0.1	8.7					2.2	10.2	—1.1	. . .	
	Th	6	4:17	10:40	16:40	22:53			S	6	5:20	11:34	18:00	. . .		●	Tu	6	0:13	5:38	11:48	18:36	
			0.7	8.3	1.5	9.0					1.2	10.2	—1.0	. . .					7.9	2.2	10.5	—1.6	
P E	F	7	5:04	11:22	17:28	23:42		●	M	7	0:20	6:02	12:12	18:44			W	7	1:00	6:20	12:30	19:15	
			0.3	9.2	0.4	9.5					8.9	1.2	10.6	—1.5					8.0	2.2	10.7	—1.7	
●	S	8	5:47	12:02	18:12	. . .			Tu	8	1:05	6:41	12:51	19:26		S	Th	8	1:41	7:02	13:11	19:56	
			0.0	9.8	—0.5	. . .					8.9	1.3	10.8	—1.7					8.0	2.3	10.5	—1.6	
	S	9	0:30	6:30	12:40	18:57			W	9	1:50	7:20	13:32	20:10			F	9	2:24	7:42	13:52	20:35	
			9.6	0.0	10.3	—1.1					8.6	1.6	10.6	—1.7					8.0	2.5	10.1	—1.2	
	M	10	1:17	7:08	13:18	19:40		S	Th	10	2:35	8:00	14:18	20:58			S	10	3:07	8:25	14:33	21:14	
			9.6	0.2	10.6	—1.3					8.2	2.0	10.3	—1.1					7.8	2.8	9.5	—0.7	
	Tu	11	2:02	7:47	14:00	20:27			F	11	3:22	8:44	14:54	21:38			S	11	3:52	9:12	15:17	21:55	
			9.4	0.6	10.6	—1.2					7.8	2.4	9.6	—0.5					7.6	3.0	8.8	—0.1	
	W	12	2:47	8:27	14:38	21:12			S	12	4:14	9:32	15:40	22:27			M	12	4:36	10:02	16:02	22:38	
			8.7	1.2	10.2	—0.8					7.3	3.0	8.8	0.2					7.4	3.4	7.8	0.7	
	Th	13	3:38	9:10	15:22	22:02			S	13	5:12	10:30	16:37	23:23			Tu	13	5:22	11:05	16:54	23:22	
			8.0	1.9	9.6	—0.1					7.0	3.5	7.7	1.0					7.3	3.6	7.0	1.4	
S	F	14	4:33	9:58	16:12	23:00		☽	M	14	6:14	11:45	17:41	. . .		☽ A	W	14	6:20	12:18	17:59	. . .	
			7.2	2.7	8.9	0.5					6.7	3.9	7.0	. . .					7.3	3.8	6.7	. . .	
☽	S	15	5:41	10:56	17:12	. . .			Tu	15	0:23	7:23	13.20	19:00		E	Th	15	0:16	7:12	13:35	19:14	
			6.6	3.4	8.1	. . .					1.7	6.7	4.0	6.4					2.2	7.4	3.6	5.6	
	S	16	0:08	7:02	12:17	18:27		A	W	16	1:30	8:25	14:42	20:23			F	16	1:12	8:04	14:42	20:34	
			1.3	6.3	4.0	7.3					2.3	7.0	3.6	6.1					2.7	7.5	3.2	5.7	
	M	17	1:28	8:20	13:58	19:50			Th	17	2:30	9:14	15:38	21:30			S	17	2:08	8:52	15:35	21:41	
			1.7	6.4	4.1	6.9					2.6	7.4	3.0	6.3					3.0	7.7	2.5	5.8	
	Tu	18	2:42	9:21	15:17	21:07		E	F	18	3:18	9:52	16:18	22:22			S	18	3:02	9:32	16:18	22:34	
			2.0	6.7	3.7	6.8					2.6	7.8	2.3	6.7					3.1	8.2	1.6	6.1	
	W	19	3:38	10:07	16:12	22:07			S	19	4:03	10:25	16:54	23:04			M	19	3:52	10:12	16:58	23:20	
			2.0	7.2	3.0	7.1					2.6	8.2	1.6	6.9					3.2	8.7	0.7	6.5	
A	Th	20	4:20	10:42	16:51	22:52			S	20	4:38	10:54	17:26	23:42			Tu	20	4:35	10:52	17:36	. . .	
			1.9	7.6	2.4	7.4					2.6	8.7	0.8	7.2					3.0	9.3	—0.2	. . .	
E	F	21	4:52	11:11	17:23	23:30			M	21	5:14	11:27	17:58	. . .			W	21	0:02	5:18	11:32	18:13	
			1.8	8.0	1.7	7.8					2.4	9.2	0.0	. . .					7.0	2.9	9.7	—0.9	
	S	22	5:23	11:38	17:52	. . .		○	Tu	22	0:27	5:47	11:58	18:30		○ N	Th	22	0:41	6:00	12:12	18:52	
			1.8	8.4	1.1	. . .					7.5	2.4	9.6	—0.6					7.4	2.7	10.1	—1.3	
	S	23	0:03	5:53	12:06	18:20			W	23	0:55	6:20	12:33	19:07			F	23	1:20	6:41	12:52	19:32	
			8.0	1.7	8.8	0.5					7.7	2.3	9.8	—1.0					7.8	2.4	10.3	—1.7	
○	M	24	0:36	6:20	12:31	18:47			Th	24	1:32	6:57	13:07	19:43			S	24	2:02	7:24	13:35	20:13	
			8.2	1.6	9.1	0.0					7.9	2.3	10.0	—1.2					8.0	2.3	10.3	—1.6	
	Tu	25	1:08	6:50	13:00	19:22		N	F	25	2:12	7:37	13:45	20:25			S	25	2:43	8:12	14:19	20:56	
			8.1	1.7	9.4	—0.4					7.8	2.3	9.9	—1.2					8.1	2.3	10.0	—1.3	
	W	26	1:45	7:22	13:30	19:59			S	26	2:55	8:19	14:27	21:10			M	26	3:28	9:03	15:08	21:42	
			8.1	1.8	9.5	—0.6					7.8	2.5	9.6	—0.9					8.3	2.2	9.4	—0.7	
	Th	27	2:22	7:56	14:05	20:38			S	27	3:40	9:10	15:15	21:59			Tu	27	4:13	10:02	16:03	22:30	
			7.7	2.1	9.5	—0.5					7.6	2.8	9.1	—0.4					8.4	2.3	8.5	0.0	
N	F	28	3:03	8:33	14:44	21:22			M	28	4:33	10:10	16:12	22:53			W	28	5:05	11:06	17:07	23:06	
			7.6	2.5	9.3	—0.3					7.5	3.0	8.4	0.3					8.4	2.4	7.7	0.9	
	S	29	3:50	9:20	15:30	22:14		☾	Tu	29	5:32	11:20	17:20	23:52		E ☾	Th	29	6:02	12:20	18:24	. . .	
			7.3	2.8	8.9	0.2					7.5	3.1	7.6	1.0					8.4	2.3	7.0	. . .	
	S	30	4:47	10:15	16:25	23:12			W	30	6:38	12:46	18:42	. . .			F	30	0:25	7:04	13:37	19:47	
			6.9	3.3	8.3	0.7					7.7	3.0	7.0	. . .					1.7	8.5	2.0	6.5	
☾	M	31	5:54	11:30	17:36	. . .											S	31	1:31	8:04	14:55	21:12	
			6.6	3.6	7.6	. . .													2.4	8.7	1.5	6.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 4.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian W.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

The harbor of St. Michael, Norton Sound, is open to navigation on an average by the middle of June, the time of breaking up of the ice varying from about the last week of May to the last week of June. The season of navigation usually closes in the latter portion of October.

The winds in summer are generally moderate; but during September and October gales are strong and frequent, northerly winds predominating. These strong winds are of special importance to mariners on account of their effect on the height of the water; northerly and easterly winds lower the water and southerly and westerly winds raise it. With northerly winds of long duration the amount of change may be as much as 5 feet below mean low water.

JUNE.								JULY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	W	1	9:30	18:39					F	1	9:36	18:39			
			3.7	—0.8							3.4	—0.6			
	Th	2	10:05	18:57				A	S	2	10:08	18:34			
			3.6	—0.8							3.1	—0.5			
	F	3	10:36	19:11					S	3	10:35	18:39			
			3.3	—0.6							2.7	—0.4			
	S	4	11:01	19:22				E	M	4	10:16	18:51			
			2.9	—0.5							2.4	—0.3			
A ☾	S	5	11:00	19:34				☾	Tu	5	9:35	19:06			
			2.5	—0.3							2.2	—0.1			
	M	6	10:36	19:55					W	6	4:11	19:36			
			2.3	—0.1							2.0	0.0			
E	Tu	7	10:11	20:15					Th	7	3:57	19:49			
			2.0	0.0							2.3	0.1			
	W	8	5:30	20:50					F	8	4:16	19:50			
			2.1	0.1							2.7	0.2			
	Th	9	5:27	20:59					S	9	4:42	19:30			
			2.4	.0.3							2.9	0.2			
	F	10	5:43	20:28					S	10	5:15	18:55			
			2.7	0.4							3.2	0.1			
	S	11	6:05	19:40				N	M	11	5:52	18:05			
			2.9	0.3							3.6	—0.2			
	S	12	6:35	17:05				●	Tu	12	6:35	17:30			
			3.2	—0.1							3.8	—0.5			
●	M	13	7:07	17:26					W	13	7:19	17:10			
			3.6	—0.4							4.0	—0.6			
N	Tu	14	7:45	17:39				P	Th	14	8:05	17:12			
			3.8	—0.6							4.0	—0.6			
	W	15	8:24	17:45					F	15	8:54	17:21			
			4.0	—0.7							3.9	—0.6			
	Th	16	9:06	17:52					S	16	9:42	17:39			
			4.0	—0.8							3.7	—0.6			
P	F	17	9:49	18:13				E	S	17	10:32	18:01			
			4.0	—0.8							3.3	—0.5			
	S	18	10:35	18:39					M	18	1:36	4:51	11:31	18:29	
			3.7	—0.8							1.5	1.3	2.7	—0.3	
	S	19	11:29	19:06				☽	Tu	19	2:02	6:22	12:25	18:52	
			3.2	—0.6							1.9	1.3	2.1	—0.1	
☽ E	M	20	3:15	5:50	12:21	19:38			W	20	2:25	8:02	13:18	19:34	
			1.6	1.5	2.7	—0.4					2.3	1.3	1.6	0.3	
	Tu	21	3:26	7:34	13:15	20:08			Th	21	3:05	11:30	14:10	20:00	
			1.8	1.6	2.0	—0.2					2.8	1.1	1.3	0.2	
	W	22	3:46	10:00	14:11	20:41			F	22	3:51	13:05	14:25	20:20	
			2.2	1.5	1.6	0.0					3.1	0.6	0.9	0.3	
	Th	23	4:25	21:05					S	23	4:34	14:13			
			2.8	0.3							3.4	0.2			
	F	24	5:06	21:21				S	S	24	5:20	15:08			
			3.1	0.4							3.6	—0.2			
	S	25	5:48	15:26					M	25	6:06	15:52			
			3.4	0.0							3.7	—0.5			
	S	26	6:31	16:13				○	Tu	26	6:50	16:34			
			3.7	—0.4							3.7	—0.6			
S ○	M	27	7:11	16:55					W	27	7:30	17:10			
			3.8	—0.7							3.6	—0.7			
	Tu	28	7:51	17:32					Th	28	8:12	17:41			
			3.8	—0.8							3.4	—0.6			
	W	29	8:30	18:04					F	29	8:45	18:04			
			3.8	—0.9							3.2	—0.4			
	Th	30	9:04	18:31				A	S	30	9:20	18:05			
			3.6	—0.8							3.0	—0.2			
								E	S	31	9:59	17:45			
											2.6	—0.1			

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 165th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

AUGUST.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	M	1	10:38 2.3	17:48 —0.1		
	Tu	2	2:41 1.8	5:01 1.6	10:22 1.9	17:58 0.0
	W	3	2:21 1.8	6:30 1.6	9:46 1.7	18:30 0.2
☾	Th	4	2:15 2.2	8:24 1.5	9:05 1.6	18:48 0.3
	F	5	2:36 2.5	18:55 0.3		
	S	6	3:06 2.8	18:47 0.3		
N	S	7	3:44 3.1	18:27 0.2		
	M	8	4:30 3.3	17:50 0.1		
	Tu	9	5:16 3.6	16:34 —0.1		
	W	10	6:08 3.7	16:15 —0.2		
● P	Th	11	7:00 3.7	16:10 —0.2		
	F	12	7:52 3.6	16:11 —0.1		
	S	13	0:40 1.0	8:47 3.4	16:26 —0.1	23:14 1.3
E	S	14	2:29 1.1	9:38 3.1	16:48 —0.1	23:45 1.6
	M	15	3:58 1.2	10:32 2.7	17:13 —0.1	
	Tu	16	0:20 2.0	5:22 1.1	11:38 2.1	17:51 0.1
☽	W	17	0:50 2.4	6:45 1.0	12:31 1.7	18:25 0.2
	Th	18	1:27 2.7	8:20 1.0	13:25 1.3	18:51 0.3
	F	19	2:13 3.0	10:26 0.7	14:30 1.0	19:16 0.3
S	S	20	3:01 3.2	12:22 0.3	15:30 0.7	19:39 0.3
	S	21	3:51 3.3	13:33 0.0		
	M	22	4:41 3.4	14:28 —0.2		
	Tu	23	5:31 3.3	15:15 —0.3		
	W	24	6:21 3.2	15:1[illegible] —0.3		
○	Th	25	7:08 3.1	16:29 —0.2		
A	F	26	7:51 2.8	17:00 0.0		
	S	27	8:34 2.6	17:12 0.2		
E	S	28	9:19 2.4	16:38 0.3		
	M	29	0:28 1.6	3:48 1.3	10:11 2.0	16:34 0.3
	Tu	30	0:29 1.8	4:49 1.3	10:55 1.7	17:03 0.4
	W	31	0:25 2.0	5:50 1.3	11:31 1.3	17:19 0.5

SEPTEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	0:29 2.2	6:45 1.2	12:08 1.3	17:32 0.5
☾	F	2	0:51 2.5	7:26 1.1	13:15 1.3	17:44 0.6
	S	3	1:24 2.8	17:52 0.5		
N	S	4	2:04 3.0	18:11 0.5		
	M	5	2:50 3.2	11:04 0.6		
	Tu	6	3:41 3.3	12:56 0.2		
	W	7	4:40 3.4	13:41 0.2		
	Th	8	5:40 3.3	13:52 0.2		
P ●	F	9	6:43 3.1	14:15 0.2	20:46 1.3	
E	S	10	0:28 1.0	7:42 2.9	14:43 0.3	21:22 1.3
	S	11	1:55 1.0	8:45 2.6	15:14 0.4	22:02 1.8
	M	12	3:19 0.9	9:50 2.3	15:58 0.4	22:36 2.2
	Tu	13	4:34 0.7	10:54 1.9	16:30 0.5	23:10 2.5
	W	14	5:32 0.6	11:49 1.7	16:59 0.6	23:51 2.8
	Th	15	6:36 0.5	12:46 1.3	17:31 0.6	
☽ S	F	16	0:36 3.0	7:50 0.4	13:46 1.2	18:02 0.6
	S	17	1:22 3.2	9:22 0.3	14:55 0.9	18:31 0.6
	S	18	2:11 3.2	11:00 0.2	16:55 0.8	19:00 0.7
	M	19	3:01 3.1	12:19 0.1		
	Tu	20	3:50 2.9	13:19 0.1		
	W	21	4:45 2.7	14:09 0.2		
A	Th	22	5:42 2.5	14:48 0.3		
	F	23	6:40 2.3	14:55 0.4	21:53 1.5	
○ E	S	24	1:24 1.3	7:48 2.1	14:51 0.6	22:11 1.7
	S	25	3:10 1.3	9:00 1.9	15:10 0.7	22:23 1.8
	M	26	4:25 1.2	9:52 1.7	15:25 0.8	22:25 1.9
	Tu	27	4:57 1.1	10:30 1.5	15:30 0.9	22:32 2.1
	W	28	5:15 1.0	11:27 1.4	15:44 1.0	23:49 2.4
	Th	29	5:38 0.8	12:15 1.4	15:58 1.0	23:15 2.7
	F	30	6:25 0.6	12:52 1.6	16:11 1.0	23:48 2.9

OCTOBER.

Moon.	Day of— W	Mo.	Time and Height of High and Low Water.			
N	S	1	7:25 0.4			
☾	S	2	0:24 3.2	8:24 0.3		
	M	3	1:06 3.2	9:10 0.2		
	Tu	4	1:52 3.2	9:56 0.2		
	W	5	2:48 3.0	10:38 0.3		
	Th	6	3:54 2.8	11:18 0.4	18:41 1.3	22:20 1.1
P E	F	7	5:07 2.5	11:55 0.5	19:16 1.4	
●	S	8	0:06 1.7	6:30 2.2	12:44 0.6	19:45 1.9
	S	9	1:29 0.9	7:45 1.9	13:24 0.8	20:18 2.2
	M	10	2:50 0.7	8:52 1.8	13:55 0.8	20:57 2.5
	Tu	11	4:02 0.5	9:58 1.6	14:32 0.8	21:40 2.8
	W	12	5:15 0.4	11:01 1.4	15:04 0.8	22:24 3.1
	Th	13	6:20 0.0	12:02 1.3	15:35 0.9	23:07 3.4
S	F	14	7:16 —0.1	23:50 3.4		
☽	S	15	8:14 —0.2			
	S	16	0:34 3.3	9:12 —0.1		
	M	17	1:15 3.1	10:08 0.0		
	Tu	18	2:03 2.8	10:46 0.1		
	W	19	2:55 2.5	11:18 0.2		
A	Th	20	3:58 2.1	11:25 0.4	20:00 1.8	23:55 1.6
E	F	21	4:58 1.7	11:37 0.5	20:21 2.0	
	S	22	3:50 1.3	6:14 1.4	12:11 0.7	20:24 2.1
○	S	23	4:38 1.1	7:20 1.4	12:37 0.9	20:30 2.3
	M	24	5:24 0.8	8:25 1.3	12:44 1.0	20:48 2.5
	Tu	25	5:54 0.6	9:30 1.1	12:40 1.0	21:06 2.7
	W	26	6:29 0.4	21:30 3.0		
	Th	27	7:04 0.2	21:59 3.2		
N	F	28	7:30 0.0	22:33 3.4		
	S	29	7:44 —0.1	23:08 3.5		
	S	30	7:50 —0.2	23:45 3.4		
☾	M	31	8:13 —0.1			

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 165th meridian W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	3:52	9:17	15:00	21:42		M	1	5:06	10:40	16:25	22:56	P	Tu	1	4:42	10:22	16:17	22:40
			4.4	2.2	4.6	—0.6				5.0	1.8	5.1	—1.1				5.0	1.4	5.2	—0.7
N	S	2	4:40	10:08	15:47	22:26	○ P	Tu	2	5:43	11:22	17:10	23:38	○	W	2	5:14	11:02	17:02	23:22
			4.8	2.0	4.8	—1.0				5.2	1.5	5.2	—1.1				5.2	0.9	5.4	—0.7
○	S	3	5:20	10:52	16:30	23:07		W	3	6:17	12:03	17:54	. . .	E	Th	3	5:46	11:42	17:44	. . .
			5.1	1.9	5.0	—1.3				5.3	1.2	5.2	. . .				5.3	0.6	5.4	. . .
P	M	4	6:00	11:37	17:12	23:51		Th	4	0:19	6:50	12:45	18:37		F	4	0:02	6:17	12:21	18:26
			5.3	1.8	5.1	—1.3				—0.9	5.3	1.0	5.1				—0.4	5.3	0.3	5.3
	Tu	5	6:38	12:20	17:56	. . .	E	F	5	1:00	7:25	13:28	19:22		S	5	0:42	6:50	13:00	19:07
			5.3	1.7	5.0	. . .				—0.5	5.2	0.8	4.8				0.0	5.2	0.2	5.0
	W	6	0:32	7:16	13:03	18:40		S	6	1:40	8:00	14:12	20:10		S	6	1:19	7:20	13:38	19:52
			—1.1	5.2	1.6	4.8				0.1	5.1	0.8	4.4				0.5	5.0	0.3	4.6
	Th	7	1:16	7:55	13:52	19:28		S	7	2:28	8:34	14:57	21:00		M	7	1:56	7:52	14:20	20:40
			—0.7	5.1	1.5	4.5				0.7	4.8	0.9	4.0				1.0	4.7	0.4	4.1
E	F	8	2:00	8:37	14:41	20:23	☾	M	8	3:06	9:12	15:52	22:09		Tu	8	2:33	8:24	15:12	21:40
			—0.2	4.9	1.5	4.2				1.4	4.5	1.0	3.4				1.7	4.5	0.7	3.5
	S	9	2:48	9:18	15:37	21:28		Tu	9	3:52	9:56	17:00	23:52	☾	W	9	3:18	9:02	16:12	23:06
			0.5	4.7	1.4	3.7				2.1	4.2	1.0	3.1				2.3	4.1	1.0	3.2
☾	S	10	3:40	10:03	16:38	22:46		W	10	4:56	10:58	18:17	. . .	S	Th	10	4:14	9:51	17:30	. . .
			1.2	4.4	1.3	3.4				2.7	4.0	1.0	. . .				2.7	3.8	1.2	. . .
	M	11	4:38	10:55	17:45	. . .		Th	11	2:02	6:22	12:12	19:37		F	11	1:23	5:52	11:21	18:56
			1.8	4.2	1.1	. . .				3.2	2.7	3.8	0.8				3.2	2.7	3.5	1.1
	Tu	12	0:30	5:45	11:55	19:00	S	F	12	3:20	7:50	13:34	20:41		S	12	2:48	7:32	13:03	20:07
			3.3	2.4	4.1	0.8				3.6	2.7	3.8	0.5				3.5	2.7	3.5	1.0
	W	13	2:16	7:00	13:00	20:05		S	13	4:05	9:00	14:38	21:30		S	13	3:30	8:45	14:30	20:59
			3.5	2.6	4.1	0.4				4.0	2.7	4.0	0.2				3.8	2.5	3.7	0.7
	Th	14	3:27	8:07	14:00	21:00		S	14	4:37	9:47	15:29	22:08	A	M	14	4:00	9:30	15:32	21:42
			3.8	2.7	4.2	0.1				4.2	2.4	4.2	0.0				4.2	2.1	4.1	0.5
S	F	15	4:18	9:12	14:53	21:46		M	15	5:05	10:25	16:12	22:42		Tu	15	4:24	10:05	16:04	22:20
			4.1	2.7	4.4	—0.2				4.4	2.1	4.4	—0.2				4.3	1.7	4.4	0.4
	S	16	4:56	10:00	15:38	22:25	A ●	Tu	16	5:28	11:00	16:52	23:12		W	16	4:44	10:37	16:38	22:51
			4.4	2.5	4.5	—0.5				4.6	1.8	4.6	—0.2				4.5	1.3	4.6	0.3
	S	17	5:18	10:40	16:20	23:00		W	17	5:48	11:30	17:24	23:42	● E	Th	17	5:07	11:07	17:11	23:24
			4.6	2.3	4.6	—0.5				4.8	1.5	4.6	—0.2				4.7	0.9	4.8	0.3
●	M	18	5:56	11:17	16:58	23:31		Th	18	6:08	12:02	17:55	. . .		F	18	5:31	11:37	17:40	23:53
			4.7	2.1	4.6	—0.5				4.8	1.3	4.7	. . .				4.9	0.7	4.9	0.4
	Tu	19	6:18	11:52	17:32	. . .	E	F	19	0:14	6:33	12:37	18:27		S	19	5:56	12:07	18:12	. . .
			4.7	1.9	4.6	. . .				0.0	4.9	1.1	4.6				4.9	0.5	5.0	. . .
A	W	20	0:02	6:42	12:27	18:04		S	20	0:47	7:00	13:10	19:00		S	20	0:25	6:23	12:41	18:48
			—0.4	4.8	1.8	4.5				0.2	4.9	1.0	4.5				0.5	4.9	0.3	4.9
	Th	21	0:35	7:09	13:02	18:36		S	21	1:20	7:25	13:42	19:37		M	21	0:58	6:50	13:12	19:26
			—0.2	4.8	1.7	4.3				0.6	4.9	0.8	4.3				0.8	4.7	0.2	4.7
	F	22	1:05	7:36	13:40	19:14		M	22	1:52	7:54	14:22	20:22		Tu	22	1:33	7:20	13:52	20:12
			0.0	4.8	1.6	4.2				1.0	4.7	0.9	4.1				1.3	4.6	0.3	4.2
E	S	23	1:42	8:07	14:20	19:55		Tu	23	2:30	8:30	15:10	21:20		W	23	2:14	7:54	14:38	21:09
			0.4	4.7	1.5	3.9				1.5	4.4	0.9	3.7				1.7	4.4	0.5	3.9
	S	24	2:18	8:38	15:04	20:43	☽	W	24	3:19	9:12	16:14	22:44		Th	24	3:04	8:36	15:40	22:28
			0.8	4.6	1.4	3.7				2.0	4.2	1.0	3.4				2.2	4.1	0.7	3.6
	M	25	2:58	9:14	15:55	21:45		Th	25	4:27	10:09	17:31	. . .	N ☽	F	25	4:16	9:37	16:55	. . .
			1.4	4.5	1.3	3.4				2.5	3.9	0.9	. . .				2.7	3.8	0.9	. . .
☽	Tu	26	3:49	10:00	17:00	23:20	N	F	26	0:42	6:08	11:39	18:55		S	26	0:14	5:52	11:18	18:23
			1.9	4.3	1.2	3.2				3.4	2.7	3.8	0.7				3.5	2.7	3.6	0.8
	W	27	5:02	11:00	18:18	. . .		S	27	2:22	7:36	13:16	20:08		S	27	1:46	7:23	13:08	19:42
			2.4	4.1	1.0	. . .				3.7	2.7	4.0	0.2				3.8	2.5	3.8	0.6
	Th	28	1:13	6:28	12:17	19:28		S	28	3:20	8:46	14:29	21:07		M	28	2:46	8:30	14:23	20:45
			3.4	2.7	4.0	0.5				4.2	2.3	4.4	—0.2				4.1	2.0	4.2	0.3
	F	29	2:44	7:53	13:35	20:31		M	29	4:04	9:38	15:28	21:57		Tu	29	3:30	9:20	15:22	21:40
			3.8	2.7	4.2	0.0				4.7	1.9	4.8	—0.5				4.6	1.4	4.7	0.1
N	S	30	3:43	9:00	14:40	21:24								P	W	30	4:06	10:03	16:10	22:26
			4.3	2.4	4.5	—0.5											4.9	0.8	5.0	0.0
	S	31	4:27	9:54	15:35	22:12								E ○	Th	31	4:40	10:42	16:54	23:05
			4.8	2.1	4.8	—0.9											5.1	0.3	5.3	0.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:13 5.2	11:20 —0.1	17:36 5.5	23:42 0.2		S	1	5:09 5.0	11:30 —0.7	18:12 5.2	23:56 1.3		W	1	0:08 2.0	5:44 4.8	12:27 —0.6	19:16 4.7
	S	2	5:45 5.1	11:57 —0.3	18:17 5.4	. . . . . .		M	2	5:40 5.0	12:09 —0.7	18:48 5.0	. . . . . .		Th	2	0:50 2.1	6:18 4.5	13:03 —0.3	19:52 4.6
	S	3	0:18 0.6	6:15 5.1	12:30 —0.3	18:58 5.1		Tu	3	0:31 1.6	6:08 4.9	12:45 —0.5	19:27 4.7		F	3	1:30 2.2	6:50 4.2	13:39 0.0	20:29 4.3
	M	4	0:55 1.0	6:44 4.9	13:10 —0.2	19:39 4.6	S	W	4	1:07 1.9	6:40 4.6	13:24 —0.2	20:07 4.3		S	4	2:18 2.3	7:27 3.8	14:18 0.5	21:10 4.2
	Tu	5	1:30 1.5	7:14 4.7	13:50 0.1	20:23 4.2		Th	5	1:47 2.2	7:11 4.3	14:06 0.3	20:52 4.0	A	S	5	3:11 2.4	8:17 3.4	15:02 1.0	21:58 4.1
S	W	6	2:10 2.0	7:44 4.4	14:35 0.5	21:15 3.7		F	6	2:35 2.4	7:48 3.8	14:50 0.7	21:47 3.8	☾	M	6	4:15 2.3	9:22 3.1	16:00 1.4	22:50 4.0
	Th	7	2:52 2.4	8:18 4.0	15:28 0.9	22:24 3.4	☾	S	7	3:36 2.6	8:36 3.4	15:43 1.1	22:55 3.6		Tu	7	5:27 2.1	11:07 2.9	17:09 1.9	23:46 3.9
☾	F	8	3:52 2.7	9:07 3.5	16:33 1.3	. . . . . .		S	8	4:56 2.6	10:02 3.0	16:52 1.5	. . . . . .	E	W	8	6:33 1.8	12:53 3.1	18:22 2.0	. . . . . .
	S	9	0:04 3.3	5:27 2.7	10:42 3.2	17:56 1.5	A	M	9	0:07 3.7	6:25 2.4	12:18 2.9	18:22 1.7		Th	9	0:43 4.0	7:29 1.3	14:06 3.4	19:28 2.1
	S	10	1:37 3.4	7:08 2.7	12:56 3.2	19:17 1.5		Tu	10	1:09 3.8	7:33 1.9	13:50 3.3	19:30 1.7		F	10	1:36 4.1	8:18 0.7	15:05 3.9	20:27 2.1
A	M	11	2:27 3.7	8:16 2.2	14:16 3.5	20:21 1.3	E	W	11	1:58 4.0	8:22 1.4	14:46 3.7	20:24 1.6		S	11	2:22 4.3	9:04 0.2	15:52 4.3	21:18 2.0
	Tu	12	3:02 4.0	9:00 1.7	15:08 3.9	21:10 1.1		Th	12	2:36 4.2	9:00 1.0	15:27 4.1	21:09 1.5		S	12	3:08 4.5	9:44 —0.3	16:33 4.7	22:07 1.9
	W	13	3:32 4.3	9:37 1.2	15:48 4.3	21:48 0.9		F	13	3:10 4.4	9:35 0.5	16:06 4.5	21:50 1.4		M	13	3:50 4.7	10:23 —0.7	17:13 5.0	22:50 1.8
E	Th	14	4:00 4.5	10:08 0.8	16:22 4.6	22:24 0.8		S	14	3:46 4.5	10:10 0.0	16:43 4.8	22:30 1.4	● N	Tu	14	4:27 4.8	11:03 —1.0	17:52 5.2	23:33 1.9
	F	15	4:27 4.7	10:40 0.4	16:55 4.9	22:57 0.7	●	S	15	4:19 4.7	10:44 —0.4	17:20 5.0	23:07 1.4		W	15	5:02 5.0	11:45 —1.1	18:32 5.2	. . . . . .
●	S	16	4:55 4.8	11:10 0.1	17:30 5.0	23:30 0.8		M	16	4:50 4.7	11:20 —0.7	17:58 5.1	23:46 1.5		Th	16	0:14 1.9	5:42 4.9	12:25 —1.0	19:12 5.2
	S	17	5:22 4.8	11:42 —0.2	18:04 5.1	. . . . . .		Tu	17	5:22 4.8	11:57 —0.8	18:37 5.1	. . . . . .	P	F	17	0:57 1.9	6:24 4.8	13:07 —0.8	19:54 5.0
	M	18	0:05 1.0	5:50 4.8	12:13 —0.3	18:40 5.0	N	W	18	0:24 1.7	5:53 4.8	12:34 —0.8	19:18 5.0		S	18	1:44 1.9	7:10 4.5	13:51 —0.4	20:40 4.9
	Tu	19	0:40 1.3	6:17 4.7	12:50 —0.4	19:22 4.9		Th	19	1:10 1.9	6:30 4.6	13:50 —0.5	20:06 4.7		S	19	2:35 1.9	8:03 4.1	14:40 0.2	21:27 4.6
	W	20	1:19 1.9	6:48 4.6	13:30 —0.2	20:10 4.6		F	20	1:55 2.1	7:11 4.4	14:02 —0.2	20:57 4.5		M	20	3:35 1.8	9:10 3.7	15:38 0.8	22:18 4.4
N	Th	21	2:02 2.0	7:24 4.4	14:17 0.1	21:04 4.2		S	21	2:50 2.3	8:01 4.0	14:56 0.3	21:55 4.3	☽ E	Tu	21	4:42 1.6	10:36 3.5	16:45 1.4	23:11 4.2
	F	22	2:57 2.4	8:11 4.0	15:14 0.4	22:16 4.0	☽	S	22	4:00 2.3	9:14 3.6	16:00 0.8	23:02 4.1		W	22	5:49 1.3	12:10 3.4	17:55 1.9	. . . . . .
☽	S	23	4:09 2.6	9:16 3.6	16:26 0.8	23:40 3.8	P	M	23	5:16 2.1	10:57 3.3	17:19 1.2	. . . . . .		Th	23	0:12 4.2	6:57 0.9	13:48 3.6	19:08 2.2
	S	24	5:40 2.5	11:10 3.3	17:48 1.0	. . . . . .	E	Tu	24	0:08 4.1	6:33 1.7	12:44 3.5	18:40 1.3		F	24	1:12 4.2	8:02 0.4	15:05 4.0	20:13 2.3
	M	25	1:00 4.0	7:05 2.1	13:02 3.6	19:12 1.0		W	25	1:08 4.1	7:36 1.2	14:22 3.9	19:49 1.6		S	25	2:05 4.4	8:55 —0.1	16:02 4.2	21:10 2.4
	Tu	26	2:00 4.2	8:07 1.5	14:15 4.1	20:22 1.0		Th	26	2:00 4.3	8:27 0.6	15:09 4.3	20:45 1.7		S	26	2:52 4.5	9:42 —0.5	16:48 4.5	21:57 2.3
P E	W	27	2:46 4.4	8:56 1.0	15:12 4.5	21:16 0.9		F	27	2:44 4.5	9:13 0.0	16:00 4.6	21:33 1.7	S	M	27	3:38 4.7	10:23 —0.7	17:27 4.7	22:40 2.3
	Th	28	3:25 4.7	9:38 0.4	16:02 5.0	22:00 0.8		S	28	3:25 4.7	10:00 —0.5	16:48 4.9	22:18 1.7	☾	Tu	28	4:20 4.7	11:02 —0.6	18:02 4.8	23:17 2.2
	F	29	4:04 4.8	10:17 —0.1	16:47 5.2	22:42 0.9	○	S	29	4:04 4.8	10:37 —0.8	17:28 5.0	22:56 1.8		W	29	4:57 4.7	11:37 —0.7	18:32 4.7	23:55 2.1
○	S	30	4:38 5.0	10:54 —0.5	17:30 5.3	23:19 1.0		M	30	4:40 4.9	11:15 —0.9	18:07 4.9	23:33 1.9		Th	30	5:32 4.7	12:10 —0.6	19:00 4.7	. . . . . .
							S	Tu	31	5:12 4.9	11:54 —0.8	18:42 4.8	. . . . . .							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon, ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:32	6:04	12:44	19:28	E	M	1	1:24	7:02	13:28	19:48		Th	1	1:58	8:00	14:08	20:04
			2.0	4.5	—0.4	4.7				1.4	4.2	0.4	4.8				0.8	4.1	1.4	4.5
	S	2	1:12	6:42	13:18	20:00		Tu	2	2:02	7:42	14:02	20:18		F	2	2:42	8:50	14:52	20:48
			2.0	4.3	0.0	4.6				1.4	4.0	0.8	4.6				0.8	3.8	1.9	4.2
A	S	3	1:52	7:15	18:52	20:30		W	3	2:40	8:24	14:37	20:39	☾	S	3	3:37	10:00	15:52	21:33
			2.0	4.0	0.3	4.6				1.3	3.7	1.3	4.5				0.9	3.4	2.4	3.9
	M	4	2:38	8:00	14:30	21:04	☾	Th	4	3:28	9:12	15:18	21:27		S	4	4:53	11:48	17:21	22:52
			1.9	3.7	0.8	4.5				1.3	3.5	1.8	4.3				1.0	3.3	2.7	3.7
E	Tu	5	3:26	8:52	15:13	21:42		F	5	4:25	10:32	16:19	22:22	N	M	5	6:18	13:40	18:57	. . .
			1.8	3.4	1.3	4.3				1.3	3.1	2.3	4.1				0.9	3.6	2.7	. . .
☾	W	6	4:23	10:02	16:05	22:30		S	6	5:40	12:24	17:48	23:36		Tu	6	0:42	7:37	14:52	20:19
			1.7	3.1	1.8	4.2				1.1	3.2	2.7	3.9				3.8	0.6	4.0	2.4
	Th	7	5:28	11:30	17:14	23:28		S	7	6:56	14:17	19:20	. . .		W	7	2:05	8:42	15:39	21:17
			1.5	2.9	2.2	4.1				0.8	3.5	2.7	. . .				4.1	0.2	4.4	1.9
	F	8	6:34	13:16	18:36	. . .	N	M	8	1:02	8:06	15:20	20:34		Th	8	3:06	9:35	16:16	22:07
			1.2	3.1	2.5	. . .				4.0	0.3	4.1	2.6				4.5	—0.2	4.8	1.4
	S	9	0:34	7:39	14:40	19:49		Tu	9	2:17	9:03	16:08	21:33		F	9	4:00	10:22	16:50	22:42
			4.0	0.7	3.6	2.6				4.2	—0.2	4.5	2.2				5.0	—0.4	5.0	0.9
	S	10	1:39	8:34	15:39	20:49		W	10	3:15	9:53	16:47	22:20	P	S	10	4:43	11:03	17:23	23:22
			4.2	0.2	4.0	2.4				4.6	—0.6	4.8	1.8	●			5.3	—0.5	5.2	0.5
	M	11	2:39	9:23	16:25	21:47	●	Th	11	4:07	10:37	17:22	23:02	E	S	11	5:27	11:45	17:55	. . .
			4.4	—0.3	4.5	2.2				5.0	—0.9	5.1	1.4				5.5	—0.3	5.3	. . .
N	Tu	12	3:30	10:10	17:02	22:34	P	F	12	4:52	11:20	17:55	23:42		M	12	0:00	6:07	12:24	18:27
			4.7	—0.8	4.9	2.0				5.2	—1.0	5.3	1.1				0.2	5.4	0.0	5.2
●	W	13	4:14	10:51	17:52	23:17		S	13	5:37	12:00	18:27	. . .		Tu	13	0:40	6:50	13:00	19:00
			4.9	—1.1	5.1	1.8				5.3	—0.9	5.3	. . .				0.0	5.3	0.4	5.0
	Th	14	4:56	11:32	18:19	. . .	E	S	14	0:23	6:18	12:40	19:00		W	14	1:16	7:35	13:37	19:30
			5.0	—1.2	5.2	. . .				0.8	5.2	—0.5	5.2				0.0	4.9	1.0	4.9
P	F	15	0:00	5:40	12:14	18:55		M	15	1:05	7:00	13:18	19:34		Th	15	1:59	8:22	14:16	20:00
			1.6	5.1	—1.1	5.4				0.7	5.0	0.0	5.1				0.1	4.4	1.6	4.5
	S	16	0:44	6:24	12:54	19:32		Tu	16	1:46	7:46	14:00	20:09		F	16	2:46	9:17	15:00	20:39
			1.5	5.0	—0.8	5.2				0.6	4.7	0.6	4.9				0.4	3.8	2.1	4.2
	S	17	1:27	7:10	13:37	20:10		W	17	2:28	8:37	14:43	20:44	☽	S	17	3:42	10:35	15:55	21:25
			1.4	4.7	—0.3	5.0				0.6	4.2	1.3	4.6	S			0.8	3.4	2.7	3.8
E	M	18	2:14	7:59	14:22	20:49	☽	Th	18	3:20	9:38	15:29	21:24		S	18	4:55	12:32	17:20	22:50
			1.3	4.4	0.3	4.8				0.7	3.7	1.9	4.3				1.1	3.3	2.7	3.5
	Tu	19	3:05	8:56	15:12	21:30		F	19	4:22	11:05	16:28	22:15		M	19	6:18	14:17	19:07	. . .
			1.2	4.0	1.0	4.6				0.9	3.3	2.5	4.1				1.2	3.5	2.7	. . .
☽	W	20	4:00	10:02	16:04	22:17		S	20	5:39	13:17	17:42	23:32		Tu	20	0:46	7:40	15:09	20:29
			1.2	3.6	1.7	4.3				1.0	3.3	2.7	3.8				3.4	1.1	3.8	2.5
	Th	21	5:05	11:37	17:07	23:13	S	S	21	7:02	14:52	19:20	. . .		W	21	2:14	8:40	15:42	21:16
			1.1	3.3	2.3	4.2				0.8	3.6	2.7	. . .				3.6	0.9	4.1	2.1
	F	22	6:20	13:36	18:24	. . .		M	22	1:06	8:16	15:46	20:42		Th	22	3:10	9:27	16:07	21:52
			0.9	3.4	2.6	. . .				3.8	0.6	3.9	2.7				4.0	0.7	4.3	1.7
	S	23	0:22	7:35	15:04	19:44		Tu	23	2:21	9:12	16:22	21:32	A	F	23	3:54	10:07	16:30	22:25
			4.1	0.5	3.7	2.7				4.0	0.3	4.2	2.4				4.3	0.6	4.5	1.2
	S	24	1:32	8:36	16:00	20:49		W	24	3:18	9:54	16:50	22:13		S	24	4:29	10:41	16:54	22:55
			4.1	0.1	4.0	2.7				4.2	0.0	4.4	2.1				4.5	0.5	4.7	0.9
S	M	25	2:31	9:30	16:44	21:44		Th	25	4:02	10:30	17:15	22:48	○	S	25	5:02	11:10	17:17	23:24
			4.2	—0.2	4.3	2.7				4.4	—0.1	4.6	1.7	E			4.7	0.5	4.8	0.6
	Tu	26	3:22	10:12	17:17	22:23	○	F	26	4:40	11:00	17:35	23:20		M	26	5:31	11:41	17:42	23:54
			4.4	—0.4	4.5	2.3				4.6	—0.1	4.6	1.4				4.8	0.6	4.8	0.4
○	W	27	4:06	10:47	17:44	23:04	A	S	27	5:14	11:32	17:55	23:50		Tu	27	6:00	12:09	18:05	. . .
			4.6	—0.5	4.6	2.1				4.7	0.0	4.8	1.1				4.9	0.7	4.8	. . .
	Th	28	4:47	11:24	18:09	23:40		S	28	5:47	12:02	18:18	. . .		W	28	0:24	6:34	12:40	18:30
			4.6	—0.5	4.7	1.8				4.7	0.1	4.9	. . .				0.2	4.8	1.0	4.7
	F	29	5:26	11:52	18:32	. . .	E	M	29	0:21	6:16	12:34	18:41		Th	29	0:54	7:10	13:14	18:58
			4.6	—0.4	4.7	. . .				1.0	4.6	0.3	4.9				0.2	4.7	1.3	4.6
	S	30	0:13	5:57	12:24	18:56		Tu	30	0:52	6:47	13:02	19:07		F	30	1:30	7:50	13:52	19:30
			1.7	4.5	—0.3	4.8				0.8	4.6	0.6	4.9				0.2	4.4	1.7	4.4
A	S	31	0:48	6:29	12:55	19:20		W	31	1:22	7:21	13:33	19:33							
			1.5	4.4	0.0	4.8				0.7	4.4	1.0	4.7							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator: A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			OCTOBER.			
	S	1	2:12 0.4	8:42 4.1	14:38 2.1	20:10 4.2
N ☾	S	2	3:05 0.6	9:47 3.7	15:42 2.6	21:00 3.8
	M	3	4:16 0.9	11:20 3.6	17:10 2.7	22:28 3.5
	Tu	4	5:41 1.0	12:59 3.7	18:46 2.5	. . . . . .
	W	5	0:28 3.5	7:04 0.9	14:10 4.0	20:02 2.0
	Th	6	1:57 3.9	8:16 0.6	14:57 4.4	20:54 1.5
	F	7	3:00 4.5	9:15 0.4	15:38 4.7	21:40 0.8
P E	S	8	3:50 5.0	10:02 0.3	16:15 5.0	22:20 0.3
●	S	9	4:37 5.3	10:45 0.2	16:50 5.1	23:00 —0.2
	M	10	5:20 5.5	11:23 0.4	17:22 5.1	23:35 —0.5
	Tu	11	6:00 5.5	12:00 0.7	17:54 5.1	. . . . . .
	W	12	0:11 —0.6	6:45 5.3	12:38 1.0	18:24 4.9
	Th	13	0:52 —0.5	7:24 4.9	13:15 1.5	18:56 4.8
	F	14	1:32 —0.3	8:10 4.5	13:53 1.9	19:27 4.5
S	S	15	2:15 0.1	9:00 4.0	14:40 2.4	20:02 4.0
☽	S	16	3:07 0.6	10:04 3.6	15:38 2.7	20:50 3.6
	M	17	4:07 1.1	11:30 3.3	16:57 2.7	22:15 3.1
	Tu	18	5:25 1.4	13:00 3.4	18:42 2.6	. . . . . .
	W	19	0:25 3.1	6:45 1.5	14:00 3.7	19:57 2.2
A	Th	20	2:00 3.4	8:00 1.5	14:40 4.0	20:46 1.7
	F	21	2:58 3.8	8:52 1.3	15:14 4.2	21:23 1.2
E	S	22	3:41 4.1	9:32 1.2	15:42 4.4	21:57 0.9
	S	23	4:14 4.5	10:08 1.1	16:10 4.6	22:27 0.5
○	M	24	4:46 4.7	10:40 1.0	16:39 4.7	22:54 0.1
	Tu	25	5:18 4.9	11:13 1.1	17:05 4.7	23:26 —0.2
	W	26	5:52 5.0	11:47 1.2	17:30 4.7	23:56 —0.4
	Th	27	6:26 4.9	12:22 1.4	17:53 4.7	. . . . . .
	F	28	0:30 —0.4	7:06 4.8	13:00 1.7	18:28 4.6
N	S	29	1:10 —0.3	7:47 4.6	13:40 2.0	19:02 4.4
	S	30	1:51 0.0	8:38 4.4	14:32 2.3	19:45 4.1
	M	31	2:45 0.3	9:38 4.1	15:38 2.5	20:44 3.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			NOVEMBER.			
☾	Tu	1	3:50 0.7	10:53 3.9	17:00 2.5	22:14 3.4
	W	2	5:05 1.0	12:14 3.9	18:24 2.1	. . . . . .
	Th	3	0:15 3.4	6:30 1.2	13:21 4.1	19:39 1.6
	F	4	1:44 3.8	7:50 1.2	14:12 4.3	20:30 1.1
E P	S	5	2:49 4.3	8:47 1.1	14:57 4.6	21:12 0.4
	S	6	3:42 4.8	9:37 1.0	15:37 4.7	21:54 —0.2
	M	7	4:30 5.1	10:20 1.1	16:14 5.0	22:35 —0.6
●	Tu	8	5:13 5.3	11:00 1.2	16:49 5.0	23:14 —0.9
	W	9	5:57 5.2	11:38 1.4	17:20 5.0	23:52 —0.9
	Th	10	6:36 5.1	12:16 1.6	17:52 4.9	. . . . . .
S	F	11	0:32 —0.8	7:17 4.8	12:55 1.9	18:26 4.7
	S	12	1:10 —0.5	8:00 4.5	13:35 2.1	18:59 4.4
	S	13	1:50 0.0	8:43 4.2	14:22 2.3	19:35 4.0
	M	14	2:38 0.4	9:32 4.0	15:20 2.5	20:27 3.5
☽	Tu	15	3:23 1.0	10:31 3.8	16:30 2.5	21:38 3.1
	W	16	4:26 1.4	11:37 3.8	17:57 2.3	23:44 2.9
A	Th	17	5:50 1.7	12:40 3.8	19:10 2.0	. . . . . .
E	F	18	1:27 3.1	7:00 1.9	13:32 3.9	20:04 1.5
	S	19	2:32 3.5	8:00 1.9	14:15 4.0	20:43 1.0
	S	20	3:17 3.9	8:48 1.8	14:50 4.3	21:20 0.5
	M	21	3:57 4.2	9:32 1.7	15:25 4.4	21:55 0.1
	Tu	22	4:34 4.6	10:10 1.7	16:02 4.6	22:30 —0.3
○	W	23	5:09 4.8	10:50 1.7	16:33 4.7	23:03 —0.6
	Th	24	5:45 4.9	11:28 1.7	17:02 4.8	23:40 —0.8
	F	25	6:22 5.0	12:07 1.8	17:36 4.7	. . . . . .
N	S	26	0:17 —0.8	7:02 5.0	12:47 1.9	18:12 4.7
	S	27	0:58 —0.7	7:44 4.9	13:32 2.1	18:51 4.5
	M	28	1:41 —0.4	8:30 4.6	14:24 2.2	19:38 4.2
	Tu	29	2:28 0.1	9:22 4.4	15:24 2.2	20:40 3.8
☾	W	30	3:27 0.6	10:21 4.3	16:36 2.1	22:07 3.4

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			DECEMBER.			
	Th	1	4:37 1.1	11:22 4.2	17:51 1.7	23:54 3.4
E	F	2	5:56 1.5	12:25 4.1	18:57 1.3	. . . . . .
P	S	3	1:25 3.7	7:10 1.8	13:22 4.2	19:57 1.3
	S	4	2:40 4.1	8:15 1.8	14:12 4.5	20:49 0.1
	M	5	3:40 4.4	9:10 1.9	15:00 4.6	21:35 —0.4
	Tu	6	4:30 4.7	9:59 1.9	15:42 4.8	22:20 —0.8
●	W	7	5:14 5.0	10:40 1.9	16:22 4.9	22:59 —1.0
S	Th	8	5:55 5.0	11:19 2.0	16:59 4.9	23:39 —1.0
	F	9	6:30 4.9	11:58 2.0	17:32 4.8	. . . . . .
	S	10	0:16 —0.8	7:07 4.8	12:37 2.0	18:08 4.7
	S	11	0:52 —0.5	7:40 4.6	13:18 2.1	18:44 4.4
	M	12	1:27 —0.2	8:18 4.5	14:02 2.2	19:22 4.0
	Tu	13	2:05 0.3	8:57 4.3	14:54 2.3	20:07 3.6
	W	14	2:47 0.8	9:37 4.2	15:52 2.3	21:07 3.2
☽ A	Th	15	3:42 1.3	10:25 4.1	17:00 2.1	22:33 2.9
E	F	16	4:38 1.7	11:15 4.0	18:08 1.8	. . . . . .
	S	17	0:20 2.9	5:47 2.1	12:09 4.0	19:06 1.4
	S	18	1:47 3.1	6:55 2.3	13:09 4.1	20:00 0.9
	M	19	2:52 3.5	8:00 2.4	13:59 4.2	20:46 0.4
	Tu	20	3:44 4.0	8:56 2.2	14:46 4.4	21:30 —0.1
	W	21	4:21 4.4	9:46 2.1	15:32 4.6	22:10 —0.5
	Th	22	5:00 4.7	10:30 2.0	16:10 4.7	22:50 —0.8
○ N	F	23	5:38 4.9	11:12 1.9	16:47 4.9	23:28 —1.0
	S	24	6:14 5.1	11:54 1.9	17:26 4.9	. . . . . .
	S	25	0:08 —1.0	6:54 5.1	12:38 1.8	18:07 4.8
	M	26	0:48 —0.9	7:31 5.1	13:20 1.8	18:50 4.7
	Tu	27	1:30 —0.5	8:12 4.9	14:10 1.8	19:40 4.3
P	W	28	2:15 0.0	8:55 4.7	15:03 1.7	20:37 3.9
E	Th	29	3:07 0.6	9:41 4.6	16:02 1.5	21:51 3.6
☾	F	30	4:08 1.3	10:32 4.3	17:07 1.4	23:17 3.4
	S	31	5:15 1.8	11:29 4.2	18:16 1.0	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:02	6:37	12:39	18:24
			—0.2	7.5	2.0	7.1
N	S	2	0:49	7:26	13:28	19:12
			—0.9	8.1	1.7	7.4
☾	S	3	1:35	8:11	14:10	19:56
			—1.4	8.6	1.4	7.8
P	M	4	2:18	8:52	14:54	20:41
			—1.7	8.8	1.1	7.9
	Tu	5	3:02	9:35	15:37	21:27
			—1.7	8.8	1.0	7.9
	W	6	3:45	10:16	16:21	22:14
			—1.4	8.7	0.9	7.6
	Th	7	4:30	11:00	17:10	23:05
			—0.9	8.4	0.9	7.4
E	F	8	5:18	11:45	17:56	. . .
			—0.2	7.9	1.0	. . .
	S	9	0:02	6:12	12:33	18:52
			6.9	0.7	7.4	1.0
☾	S	10	1:02	7:12	13:27	19:55
			6.5	1.6	6.9	1.1
	M	11	2:16	8:22	14:30	21:07
			6.1	2.3	6.4	1.1
	Tu	12	3:42	9:42	15:39	22:20
			6.0	2.8	6.1	0.9
	W	13	5:06	11:02	16:45	23:25
			6.2	2.9	6.1	0.6
	Th	14	6:12	12:07	17:46	. . .
			6.6	2.8	6.3	. . .
S	F	15	0:20	7:03	13:00	18:38
			0.2	7.1	2.6	6.5
	S	16	1:06	7:44	13:43	19:20
			—0.1	7.4	2.3	6.7
	S	17	1:43	8:18	14:19	19:59
			—0.3	7.6	2.0	6.8
●	M	18	2:18	8:49	14:50	20:30
			—0.4	7.7	1.8	6.9
	Tu	19	2:46	9:17	15:20	21:04
			—0.4	7.8	1.7	6.9
A	W	20	3:17	9:46	15:50	21:35
			—0.2	7.8	1.6	6.9
	Th	21	3:48	10:12	16:21	22:10
			0.0	7.7	1.5	6.8
	F	22	4:20	10:42	16:52	22:48
			0.3	7.6	1.4	6.7
E	S	23	4:55	11:14	17:27	23:30
			0.7	7.4	1.3	6.4
	S	24	5:34	11:50	18:12	. . .
			1.2	7.1	1.3	. . .
	M	25	0:17	6:20	12:36	19:00
			6.2	1.8	6.7	1.3
☽	Tu	26	1:16	7:16	13:29	20:02
			5.9	2.4	6.4	1.3
	W	27	2.33	8:31	14:34	21:18
			5.7	2.9	6.1	1.1
	Th	28	4:01	10:00	15:51	22:31
			6.0	3.0	6.0	0.7
	F	29	5:20	11:20	17:03	23:37
			6.4	2.8	6.4	0.1
N	S	30	6:22	12:22	18:06	. . .
			7.1	2.3	6.9	. . .
	S	31	0:34	7:12	13:13	19:00
			—0.6	7.8	1.7	7.4

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	M	1	1:22	7:57	13:58	19:48
			—1.2	8.4	1.1	7.9
○ P	Tu	2	2:09	8:37	14:40	20:35
			—1.5	8.8	0.6	8.3
	W	3	2:52	9:17	15:23	21:20
			—1.6	8.9	0.3	8.4
	Th	4	3:34	9:55	16:03	22:05
			—1.4	8.8	0.1	8.3
E	F	5	4:17	10:35	16:44	22:51
			—0.9	8.6	0.1	7.9
	S	6	5:02	11:16	17:28	23:39
			—0.1	8.1	0.2	7.4
	S	7	5:49	12:00	18:17	. . .
			0.7	7.4	0.5	. . .
☾	M	8	0:32	6:40	12:47	19:12
			6.8	1.7	6.8	0.9
	Tu	9	1:40	7:40	13:43	20:23
			6.1	2.6	6.2	1.3
	W	10	3:06	9:02	14:54	21:46
			5.7	3.2	5.7	1.4
	Th	11	4:42	10:37	16:16	23:01
			5.8	3.4	5.6	1.1
S	F	12	5:58	11:54	17:28	. . .
			6.2	3.1	5.7	. . .
	S	13	0:02	6:48	12:49	18:27
			0.7	6.7	2.7	6.1
	S	14	0:50	7:27	13:30	19:11
			0.5	7.1	2.3	6.5
	M	15	1:30	8:00	14:02	19:47
			0.2	7.4	1.8	6.8
A ●	Tu	16	2:02	8:25	14:31	20:21
			0.0	7.6	1.4	7.1
	W	17	2:29	8:51	14:58	20:50
			—0.1	7.8	1.1	7.3
	Th	18	3:00	9:17	15:25	21:18
			—0.1	7.9	0.9	7.4
E	F	19	3:28	9:42	15:51	21:52
			0.0	7.9	0.7	7.4
	S	20	4:00	10:12	16:20	22:26
			0.3	7.4	0.5	7.4
	S	21	4:30	10:43	16:54	23:02
			0.6	7.5	0.5	7.2
	M	22	5:07	11:16	17:30	23:46
			1.1	7.2	0.6	6.9
	Tu	23	5:47	11:55	18:17	. . .
			1.7	6.8	0.8	. . .
☽	W	24	0:42	6:38	12:42	19:17
			6.4	2.4	6.4	1.0
	Th	25	1:55	7:50	13:50	20:33
			6.0	3.0	5.9	1.2
N	F	26	3:27	9:29	15:28	22:00
			5.9	3.3	5.8	1.0
	S	27	4:57	11:00	16:44	23:18
			6.3	2.9	6.1	0.4
	S	28	6:02	12:07	17:55	. . .
			7.0	2.2	6.8	. . .
	M	29	0:20	6:53	13:00	18:51
			—0.2	7.6	1.4	7.5

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:11	7:36	13:42	19:40
			—0.8	8.3	0.6	8.3
○	W	2	1:57	8:15	14:22	20:24
			—1.2	8.7	—0.1	8.7
E	Th	3	2:38	8:53	15:00	21:07
			—1.3	8.9	—1.3	8.9
	F	4	3:20	9:32	15:40	21:50
			—1.0	8.8	—0.7	8.7
	S	5	4:00	10:10	16:19	22:32
			—0.6	8.5	—0.6	8.4
	S	6	4:40	10:46	17:00	23:15
			0.1	8.0	—0.3	7.7
	M	7	5:21	11:23	17:40	. . .
			1.0	7.3	0.2	. . .
	Tu	8	0:05	6:06	12:06	18:31
			7.0	2.0	6.7	0.8
☾	W	9	1:03	7:02	13:00	19:35
			6.3	2.8	5.9	1.4
S	Th	10	2:21	8:24	14:14	21:00
			5.6	3.4	5.3	1.8
	F	11	4:03	10:11	15:51	22:30
			5.5	3.5	5.2	1.8
	S	12	5:27	11:37	17:15	23:40
			6.9	3.1	5.4	1.5
	S	13	6:19	12:30	18:15	. . .
			6.4	2.5	5.9	. . .
A	M	14	0:30	6:56	13:16	18:56
			1.1	6.8	2.0	6.5
	Tu	15	1:06	7:27	13:37	19:32
			0.7	7.2	1.4	6.9
	W	16	1:40	7:53	14:08	20:02
			0.4	7.5	0.9	7.3
● E	Th	17	2:11	8:23	14:29	20:31
			0.2	7.8	0.5	7.7
	F	18	2:40	8:49	14:56	21:02
			0.2	7.9	0.1	7.9
	S	19	3:08	9:15	15:22	21:33
			0.1	7.9	0.0	8.0
	S	20	3:27	9:42	15:50	22:02
			0.3	7.8	—0.2	8.0
	M	21	4:08	10:11	16:22	22:41
			0.7	7.6	—0.2	7.7
	Tu	22	4:44	10:44	17:00	23:26
			1.2	7.3	0.0	7.3
	W	23	5:25	11:24	17:46	. . .
			1.9	6.8	0.4	. . .
	Th	24	0:20	6:15	12:13	18:45
			6.8	2.5	6.3	0.8
N ☽	F	25	1:30	7:30	13:24	20:02
			6.8	3.1	5.8	1.2
	S	26	3:00	9:11	15:00	21:36
			6.0	3.1	5.6	1.3
	S	27	4:30	10:43	16:35	23:00
			6.3	2.6	6.0	0.9
	M	28	5:37	11:47	17:45	. . .
			6.9	1.8	6.9	. . .
	Tu	29	0:05	6:27	12:38	18:40
			0.3	7.5	0.9	7.7
P	W	30	0:57	7:10	13:20	19:28
			—0.2	8.1	0.1	8.4
E ☾	Th	31	1:40	7:52	14:00	20:12
			—0.6	8.5	—0.6	8.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (–) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:24	8:28	14:37	20:50
			—0.7	8.6	—1.0	8.1
	S	2	3:00	9:03	15:13	21:30
			—0.4	8.5	—1.1	8.9
	S	3	3:40	9:38	15:50	22:12
			0.0	8.2	—1.0	8.5
	M	4	4:17	10:12	16:28	22:53
			0.7	7.8	—0.6	7.9
	Tu	5	4:56	10:50	17:10	23:38
			1.4	7.2	0.0	7.2
S	W	6	5:40	11:30	17:53	. . .
			2.2	6.4	0.7	. . .
	Th	7	0:30	6:32	12:20	18:50
			6.5	2.9	5.7	1.4
☾	F	8	1:38	7:50	13:34	20:04
			5.8	3.3	5.1	2.0
	S	9	3:09	9:34	15:19	21:39
			5.6	3.4	4.9	2.2
	S	10	4:32	11:00	16:50	22:59
			5.8	2.9	5.2	2.1
A	M	11	5:32	11:51	17:50	23:54
			6.1	2.3	5.8	1.7
	Tu	12	6:14	12:27	18:32	. . .
			6.6	1.6	6.4	. . .
	W	13	0:37	6:47	13:00	19:06
			1.3	6.9	1.1	7.0
E	Th	14	1:12	7:18	13:30	19:40
			0.9	7.3	0.5	7.6
	F	15	1:45	7:46	13:58	20:11
			0.6	7.6	0.0	8.0
●	S	16	2:13	8:14	14:23	20:37
			0.5	7.7	—0.4	8.3
	S	17	2:45	8:41	14:52	21:11
			0.6	7.8	—0.7	8.4
	M	18	3:17	9:11	15:25	21:48
			0.7	7.7	—0.8	8.4
	Tu	19	3:50	9:43	16:00	22:28
			1.0	7.5	—0.7	8.1
	W	20	4:28	10:20	16:40	23:13
			1.5	7.2	—0.4	7.6
N	Th	21	5:12	11:02	17:27	. . .
			2.0	6.7	0.1	. . .
	F	22	0:06	6:07	11:56	18:25
			7.1	2.5	6.2	0.7
☽	S	23	1:13	7:20	13:10	19:42
			6.5	3.9	5.7	1.3
	S	24	2:34	8:52	14:51	21:14
			6.3	2.8	5.6	1.5
	M	25	3:57	10:16	16:22	22:37
			6.4	2.1	6.1	1.3
	Tu	26	5:02	11:18	17:28	23:42
			6.8	1.3	6.9	0.9
P E	W	27	5:55	12:10	18:24	. . .
			7.2	0.6	7.6	. . .
	Th	28	0:37	6:42	12:54	19:11
			0.4	7.7	—0.3	8.4
	F	29	1:23	7:23	13:34	19:54
			0.3	8.0	—0.9	8.8
○	S	30	2:08	8:00	14:12	20:37
			0.3	8.1	—1.3	8.9

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	2:42	8:36	14:49	21:16
			0.5	8.1	—1.3	8.7
	M	2	3:21	9:10	15:25	21:55
			0.8	7.8	—1.1	8.4
	Tu	3	3:56	9:45	16:02	22:34
			1.3	7.4	—0.7	7.9
S	W	4	4:34	10:20	16:40	23:16
			1.8	7.9	—0.1	7.3
	Th	5	5:18	11:00	17:21	. . .
			2.3	6.2	0.6	. . .
	F	6	0:02	6:09	11:49	18:11
			6.7	2.8	5.6	1.4
☾	S	7	0:58	7:10	12:55	19:12
			6.2	3.1	5.0	2.0
	S	8	2:06	8:32	14:17	20:34
			5.9	3.1	4.8	2.4
A	M	9	3:20	9:54	16:00	22:00
			5.9	2.7	5.0	2.5
	Tu	10	4:22	10:55	17:07	23:07
			5.9	2.2	5.6	2.2
E	W	11	5:15	11:40	17:54	23:55
			6.8	1.5	6.3	1.9
	Th	12	6:00	12:17	18:33	. . .
			6.7	0.9	6.9	. . .
	F	13	0:35	6:35	12:51	19:08
			1.5	7.0	0.2	7.6
	S	14	1:13	7:07	13:22	19:44
			1.3	7.3	—0.4	8.1
●	S	15	1:49	7:40	13:54	20:20
			1.1	7.5	—0.9	8.4
	M	16	2:25	8:12	14:32	20:58
			1.1	7.6	—1.2	8.6
	Tu	17	3:00	8:46	15:04	21:37
			1.2	7.6	—1.2	8.6
N	W	18	3:38	9:24	15:45	22:20
			1.4	7.5	—1.1	8.4
	Th	19	4:20	10:05	16:27	23:04
			1.6	7.2	—0.7	8.0
	F	20	5:09	10:50	17:13	23:56
			1.9	6.7	—0.1	7.5
	S	21	6:02	11:50	18:12	. . .
			2.2	6.3	0.6	. . .
☽	S	22	0:55	7:09	13:05	19:22
			7.0	2.3	5.9	1.2
P	M	23	2:05	8:25	14:35	20:46
			6.7	2.1	5.8	1.7
E	Tu	24	3:15	9:42	15:56	22:09
			6.5	1.7	6.2	1.8
	W	25	4:22	10:50	17:21	23:20
			6.7	1.1	6.8	1.6
	Th	26	5:24	11:44	18:08	. . .
			7.0	0.3	7.4	. . .
	F	27	0:16	6:12	12:32	19:00
			1.4	7.3	—0.4	7.9
	S	28	1:06	6:55	13:16	19:44
			1.3	7.5	—0.9	8.3
○	S	29	1:47	7:35	13:55	20:25
			1.2	7.6	—1.2	8.4
	M	30	2:26	8:12	14:32	21:04
			1.3	7.6	—1.2	8.4
S	Tu	31	3:03	8:47	15:07	21:41
			1.5	7.4	—1.0	8.2

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	3:40	9:24	15:42	22:18
			1.7	7.1	—0.6	7.9
	Th	2	4:17	10:00	16:18	22:54
			2.0	6.7	—0.1	7.4
	F	3	4:59	10:40	16:56	23:33
			2.2	6.2	0.5	7.0
	S	4	5:44	11:25	17:40	. . .
			2.5	5.7	1.1	. . .
A	S	5	0:18	6:31	12:22	18:30
			6.7	2.6	5.3	1.8
☾	M	6	1:06	7:31	13:31	19:32
			6.3	2.6	5.1	2.3
	Tu	7	2:02	8:40	14:51	20:48
			6.1	2.4	5.1	2.6
E	W	8	3:03	9:45	16:04	21:59
			6.0	2.0	5.4	2.7
	Th	9	4:08	10:40	17:06	23:02
			6.2	1.5	6.0	2.5
	F	10	5:02	11:30	17:57	23:57
			6.4	0.8	6.6	2.2
	S	11	5:50	12:12	18:43	. . .
			6.7	0.1	7.3	. . .
	S	12	0:44	6:32	12:54	19:25
			1.9	7.0	—0.5	8.0
	M	13	1:27	7:14	13:32	20:06
			1.7	7.3	—1.0	8.3
● N	Tu	14	2:07	7:52	14:12	20:46
			1.4	7.5	—1.4	8.6
	W	15	2:48	8:32	14:52	21:27
			1.4	7.6	—1.5	8.7
	Th	16	3:28	9:14	15:32	22:10
			1.3	7.6	—1.3	8.6
P	F	17	4:11	9:58	16:17	22:52
			1.4	7.5	—0.9	8.3
	S	18	5:00	10:47	17:07	23:41
			1.5	7.1	—0.4	7.9
	S	19	5:51	11:45	17:59	. . .
			1.6	6.7	0.4	. . .
	M	20	0:32	6:47	12:53	19:05
			7.4	1.6	6.3	1.2
☽ E	Tu	21	1:27	7:52	14:04	20:16
			7.0	1.5	6.1	1.9
	W	22	2:31	9:04	15:28	21:36
			6.6	1.3	6.2	2.2
	Th	23	3:44	10:14	16:48	22:52
			6.5	0.9	6.5	2.3
	F	24	4:45	11:17	17:56	23:56
			6.5	0.4	7.0	2.3
	S	25	5:42	12:12	18:51	. . .
			6.7	—0.1	7.4	. . .
	S	26	0:49	6:32	13:00	19:37
			2.1	7.0	—0.6	7.7
S	M	27	1:35	7:17	13:41	20:17
			2.0	7.1	—0.8	7.9
○	Tu	28	2:15	7:57	14:18	20:52
			1.8	7.1	—0.8	8.0
	W	29	2:52	8:34	14:53	21:27
			1.8	7.1	—0.7	8.0
	Th	30	3:27	9:10	15:26	22:00
			1.8	7.0	—0.5	7.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon, all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:02 1.8	9:47 6.7	16:00 —0.1	22:32 7.7
	S	2	4:38 1.9	10:20 6.5	16:34 0.3	23:05 7.4
A	S	3	5:14 1.9	11:00 6.2	17:10 0.9	23:38 7.2
	M	4	5:52 1.9	11:48 5.9	17:50 1.5	. . . . . .
E	Tu	5	0:15 7.3	6:38 1.9	12:40 5.6	18:37 2.0
☾	W	6	1:00 6.5	7:32 1.9	13:40 5.4	19:37 2.5
	Th	7	1:56 6.2	8:34 1.7	14:54 5.5	20:50 2.9
	F	8	3:00 6.0	9:42 1.4	16:14 5.7	22:10 2.9
	S	9	4:07 6.1	10:44 0.9	17:24 6.3	23:20 2.8
	S	10	5:08 6.3	11:40 0.3	18:20 7.1	. . . . . .
	M	11	0:18 2.4	6:02 6.7	12:30 —0.4	19:08 7.6
N	Tu	12	1:08 2.0	6:52 7.2	13:17 —1.0	19:52 8.3
●	W	13	1:53 1.6	7:38 7.6	14:00 —1.4	20:35 8.6
	Th	14	2:37 1.2	8:23 7.9	14:42 —1.6	21:15 8.8
P	F	15	3:18 0.9	9:07 8.0	15:25 —1.5	21:56 8.8
	S	16	3:59 0.7	9:52 8.0	16:10 —1.1	22:35 8.6
	S	17	4:44 0.6	10:41 7.7	16:58 —0.5	23:18 8.2
E	M	18	5:30 0.7	11:34 7.3	17:44 0.3	. . . . . .
	Tu	19	0:04 7.7	6:17 0.8	12:29 6.9	18:38 1.2
☽	W	20	0:52 7.1	7:16 0.9	13:36 6.4	19:42 2.0
	Th	21	1:52 6.6	8:25 1.0	14:57 6.1	20:58 2.6
	F	22	2:59 6.2	9:40 1.0	16:27 6.1	22:24 3.0
	S	23	4:11 6.1	10:54 0.7	17:44 6.5	23:41 2.9
	S	24	5:20 6.2	11:56 0.3	18:42 6.9	. . . . . .
S	M	25	0:40 2.6	6:17 6.4	12:47 0.0	19:28 7.3
	Tu	26	1:28 2.3	7:07 6.7	13:30 —0.3	20:06 7.6
○	W	27	2:05 2.0	7:48 6.9	14:06 —0.4	20:37 7.8
	Th	28	2:38 1.7	8:24 7.0	14:41 —0.4	21:08 7.8
	F	29	3:10 1.5	8:58 7.1	15:10 —0.3	21:35 7.9
	S	30	3:40 1.3	9:30 7.1	15:41 —0.1	22:02 7.8
A	S	31	4:11 1.3	10:02 7.0	16:11 0.3	22:31 7.7

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	4:40 1.2	10:38 6.8	16:42 0.7	22:59 7.5
	Tu	2	5:10 1.1	11:16 6.6	17:16 1.2	23:32 7.2
	W	3	5:50 1.1	11:56 6.3	17:58 1.7	. . . . . .
☾	Th	4	0:12 6.8	6:35 1.3	12:48 6.0	18:46 2.3
	F	5	0:59 6.4	7:30 1.4	13:58 5.7	19:52 2.9
	S	6	1:59 6.0	8:42 1.4	15:25 5.7	21:18 3.2
	S	7	3:16 5.9	9:59 1.1	16:50 6.1	22:47 3.1
N	M	8	4:34 6.1	11:12 0.6	17:57 6.8	23:58 2.6
	Tu	9	5:42 6.7	12:12 —0.2	18:50 7.5	. . . . . .
	W	10	0:53 1.9	6:39 7.1	13:04 —0.8	19:36 8.2
●	Th	11	1:39 1.3	7:29 7.8	13:49 —1.3	20:17 8.6
P	F	12	2:20 0.6	8:15 8.3	14:32 —1.5	20:56 8.8
	S	13	3:00 0.2	9:00 8.6	15:14 —1.4	21:34 8.9
E	S	14	3:41 —0.1	9:44 8.6	15:55 —1.0	22:10 8.7
	M	15	4:22 —0.2	10:30 8.3	16:40 —0.4	22:52 8.4
	Tu	16	5:02 —0.2	11:16 7.9	17:24 0.4	23:35 7.7
	W	17	5:47 0.2	12:05 7.3	18:13 1.3	. . . . . .
☽	Th	18	0:19 7.1	6:40 0.6	13:05 6.6	19:07 2.3
	F	19	1:12 6.4	7:44 1.0	14:22 5.9	20:21 3.0
	S	20	2:20 5.8	9:02 1.3	16:00 5.8	22:00 3.3
S	S	21	3:42 5.6	10:30 1.3	17:28 6.1	23:27 3.2
	M	22	5:05 5.8	11:40 0.9	18:28 6.6	. . . . . .
	Tu	23	0:30 2.7	6:08 6.2	12:35 0.6	19:10 7.0
	W	24	1:15 2.2	6:58 6.5	13:16 0.3	19:47 7.4
	Th	25	1:50 1.7	7:40 6.9	13:52 0.1	20:13 7.6
○	F	26	2:20 1.3	8:13 7.2	14:22 0.0	20:40 7.7
A	S	27	2:47 0.9	8:43 7.4	14:53 0.0	21:05 7.9
	S	28	3:15 0.7	9:12 7.4	15:21 0.1	21:34 7.9
E	M	29	3:40 0.5	9:42 7.5	15:47 0.4	22:00 7.7
	Tu	30	4:10 0.4	10:12 7.4	16:17 0.6	22:27 7.5
	W	31	4:39 0.5	10:49 7.3	16:49 1.1	22:57 7.2

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	5:10 0.5	11:26 7.0	17:27 1.7	23:32 6.9
	F	2	5:52 0.7	12:14 6.5	18:10 2.3	. . . . . .
☾	S	3	0:14 6.4	6:43 1.0	13:20 6.0	19:14 3.0
	S	4	1:12 5.9	7:52 1.3	14:44 5.8	20:47 3.3
N	M	5	2:38 5.6	9:22 1.3	16:19 6.0	22:24 3.1
	Tu	6	4:12 5.8	10:47 0.9	17:33 6.7	23:40 2.4
	W	7	5:28 6.4	11:54 0.3	18:28 7.4	. . . . . .
	Th	8	0:35 1.6	6:29 7.2	12:48 —0.4	19:13 8.0
	F	9	1:20 0.7	7:18 8.0	13:35 —0.9	19:52 8.5
P	S	10	2:00 0.0	8:05 8.6	14:17 —1.1	20:32 8.8
● E	S	11	2:40 —0.6	8:47 9.0	15:00 —1.1	21:10 8.9
	M	12	3:17 —0.8	9:28 9.0	15:40 —0.7	21:46 8.6
	Tu	13	3:55 —0.9	10:09 8.8	16:20 —0.1	22:22 8.2
	W	14	4:33 —0.7	10:52 8.2	17:00 0.7	23:00 7.6
	Th	15	5:18 —0.2	11:42 7.5	17:45 1.6	23:42 6.8
	F	16	6:04 0.4	12:37 6.7	18:37 2.5	. . . . . .
☽ S	S	17	0:33 6.1	7:07 1.1	13:48 6.0	19:50 3.2
	S	18	1:42 5.5	8:22 1.6	15:22 5.7	21:33 3.4
	M	19	3:18 5.2	9:57 1.6	16:54 5.8	23:10 3.1
	Tu	20	4:50 5.4	11:17 1.6	17:57 6.3	. . . . . .
	W	21	0:10 2.5	5:58 5.8	12:12 1.3	18:38 6.8
	Th	22	0:51 1.9	6:55 6.5	12:55 0.9	19:12 7.1
A	F	23	1:25 1.3	7:21 6.9	13:30 0.7	19:41 7.4
	S	24	1:52 0.8	7:54 7.4	14:00 0.5	20:10 7.6
○ E	S	25	2:17 0.5	8:22 7.6	14:29 0.4	20:34 7.7
	M	26	2:42 0.2	8:51 7.9	14:55 0.3	20:59 7.7
	Tu	27	3:09 0.0	9:21 8.0	15:24 0.6	21:26 7.6
	W	28	3:35 —0.2	9:48 7.9	15:53 0.8	21:52 7.5
	Th	29	4:04 —0.2	10:23 7.8	16:30 1.3	22:24 7.3
	F	30	4:38 —0.1	11:05 7.4	17:04 1.8	23:00 6.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	1:30	7:40	13:08	20:17			M	1	2:52	9:12	14:23	21:33		P	Tu	1	2:22	8:47	14:10	21:11	
			8.8	4.2	8.8	—0.1					9.4	3.5	8.9	—0.1					9.0	2.9	9.0	0.8	
N	S	2	2:25	8:40	13:56	21:07		○	Tu	2	3:39	10:02	15:15	22:22		○	W	2	3:08	9:39	15:02	22:02	
			9.4	4.1	8.9	—0.4		P			9.5	3.0	9.1	0.0					9.2	2.3	9.3	0.9	
○	S	3	3:16	9:35	14:42	21:54			W	3	4:22	10:50	16:05	23:10		E	Th	3	3:52	10:26	15:55	22:50	
			9.6	3.9	9.0	—0.6					9.7	2.5	9.4	0.3					9.5	1.6	9.7	1.1	
P	M	4	4:03	10:26	15:29	22:40			Th	4	5:05	11:37	16:55	23:53			F	4	4:30	11:10	16:45	23:32	
			10.0	3.5	9.0	—0.6					9.8	2.0	9.4	0.6					9.5	1.1	9.9	1.4	
	Tu	5	4:48	11:14	16:16	23:26		E	F	5	5:47	12:22	17:46	. . .			S	5	5:12	11:55	17:35	. . .	
			10.2	3.2	9.0	—0.4					9.9	1.6	9.4	. . .					9.5	0.6	9.9	. . .	
	W	6	5:32	12:00	17:06	. . .			S	6	0:37	6:27	13:09	18:36			S	6	0:15	5:52	12:40	18:25	
			10.2	2.7	9.0	. . .					1.2	9.8	1.2	9.3					1.8	9.4	0.4	9.7	
	Th	7	0:10	6:16	12:47	17:57			S	7	1:20	7:08	13:54	19:30			M	7	1:02	6:32	13:25	19:14	
			—0.1	10.1	2.3	8.9					1.8	9.5	0.9	8.9					2.3	9.3	0.3	9.3	
E	F	8	0:57	6:59	13:35	18:50		☾	M	8	2:03	7:52	14:42	20:26			Tu	8	1:41	7:16	14:11	20:07	
			0.6	10.0	1.9	8.8					2.5	9.3	0.7	8.6					2.8	9.1	0.4	9.1	
	S	9	1:40	7:42	14:23	19:47			Tu	9	2:48	8:38	15:34	21:28		☾	W	9	2:30	8:00	15:00	21:02	
			1.3	9.8	1.5	8.5					3.1	9.0	0.7	8.4					3.2	8.8	0.6	8.8	
☾	S	10	2:27	8:28	15:12	20:48			W	10	3:40	9:27	16:30	22:33		S	Th	10	3:17	8:50	15:52	22:00	
			2.1	9.5	1.2	8.3					3.6	8.8	0.8	8.2					3.6	8.5	0.9	8.5	
	M	11	3:13	9:16	16:07	21:54			Th	11	4:37	10:20	17:27	23:37			F	11	4:12	9:45	16:49	23:02	
			2.8	9.2	1.0	8.1					4.0	8.6	0.9	8.1					3.7	8.1	1.2	8.3	
	Tu	12	4:07	10:04	17:06	23:01		S	F	12	5:39	11:14	18:26	. . .			S	12	5:16	10:43	17:47	. . .	
			3.5	9.0	0.8	8.1					4.2	8.3	1.0	. . .					3.7	7.8	1.6	. . .	
	W	13	5:08	10:55	18:04	. . .			S	13	0:37	6:44	12:12	19:25			S	13	0:02	6:20	11:45	18:47	
			4.0	8.8	0.6	. . .					8.2	4.2	8.2	1.0					8.4	3.6	7.8	1.8	
	Th	14	0:07	6:07	11:48	19:02			S	14	1:32	7:49	13:06	20:19		A	M	14	0:55	7:21	12:45	19:44	
			8.2	4.3	8.7	0.4					8.4	3.9	8.3	1.0					8.5	3.2	8.0	1.9	
S	F	15	1:07	7:12	12:40	19:57			M	15	2:20	8:44	13:59	21:07			Tu	15	1:44	8:19	13:40	20:37	
			8.4	4.4	8.7	0.3					8.7	3.5	8.4	1.0					8.7	2.8	8.2	1.9	
	S	16	2:02	8:12	13:28	20:47		A	Tu	16	3:05	9:36	14:47	21:52			W	16	2:28	9:10	14:32	21:25	
			8.6	4.2	8.6	0.1		●			9.0	3.0	8.6	1.0					9.0	2.3	8.6	1.9	
●	S	17	2:51	9:09	14:17	21:34			W	17	3:47	10:22	15:35	22:34		●	Th	17	3:10	9:55	15:21	22:09	
			8.9	3.9	8.7	0.1					9.3	2.5	8.8	1.0		E			9.2	1.8	9.0	1.9	
	M	18	3:35	10:00	15:03	22:17			Th	18	4:26	11:05	16:20	23:15			F	18	3:50	10:38	16:07	22:50	
			9.3	3.5	8.6	0.1					9.5	2.0	8.9	1.2					9.3	1.3	9.3	2.0	
	Tu	19	4:17	10:47	15:50	22:57		E	F	19	5:05	11:46	17:07	23:55			S	19	4:28	11:17	16:52	23:32	
			9.5	3.1	8.6	0.3					9.7	1.7	9.2	1.5					9.3	0.9	9.6	2.2	
A	W	20	4:57	11:31	16:36	23:38			S	20	5:43	12:26	17:52	. . .			S	20	5:07	11:57	17:33	. . .	
			9.7	2.7	8.6	0.6					9.7	1.4	9.1	. . .					9.2	0.6	9.7	. . .	
	Th	21	5:37	12:15	17:22	. . .			S	21	0:35	6:22	13:08	18:41			M	21	0:14	5:46	12:36	18:26	
			9.9	2.3	8.6	. . .					1.8	9.5	1.2	9.1					2.3	9.1	0.4	9.8	
	F	22	0:17	6:18	12:56	18:08			M	22	1:16	7:03	13:50	19:30			Tu	22	0:55	6:26	13:19	19:14	
			1.0	10.0	2.0	8.6					2.3	9.2	1.0	9.1					2.7	8.9	0.3	9.8	
E	S	23	0:58	6:57	13:40	18:57			Tu	23	1:57	7:46	14:37	20:25			W	23	1:40	7:10	14:02	20:07	
			1.4	9.9	1.7	8.5					2.7	9.0	0.9	9.1					3.1	8.7	0.5	9.6	
	S	24	1:38	7:40	14:25	19:50		☽	W	24	2:45	8:31	15:22	21:26			Th	24	2:28	7:54	14:50	21:03	
			1.9	9.6	1.5	8.3					3.2	8.7	0.8	8.8					3.4	8.4	0.6	9.3	
	M	25	2:18	8:23	15:10	20:47			Th	25	3:32	9:21	16:15	22:30		N	F	25	3:09	8:46	15:42	22:02	
			2.6	9.3	1.4	8.2					3.7	8.5	0.8	8.7		☽			3.6	8.1	0.8	9.1	
☽	Tu	26	3:04	9:10	16:00	21:51		N	F	26	4:36	10:15	17:14	23:33			S	26	4:17	9:44	16:39	23:04	
			3.1	9.0	1.1	8.1					3.9	8.3	0.9	8.6					3.7	7.8	1.2	8.8	
	W	27	3:55	10:00	16:57	22:57			S	27	5:42	11:15	18:18	. . .			S	27	5:20	10:48	17:44	. . .	
			3.6	8.8	1.0	8.3					4.0	8.2	0.9	. . .					3.5	8.0	1.5	. . .	
	Th	28	5:00	10:51	17:54	. . .			S	28	0:36	6:50	12:14	19:19			M	28	0:05	6:24	11:55	18:47	
			4.0	8.6	0.7	. . .					8.7	3.8	8.4	0.9					8.8	3.1	8.2	1.7	
	F	29	0:02	6:06	11:45	18:50			M	29	1:32	7:50	13:14	20:18			Tu	29	0:59	7:27	12:57	19:50	
			8.5	4.2	8.5	0.5					8.8	3.4	8.6	0.9					8.8	2.7	8.5	1.9	
N	S	30	1:05	7:13	12:39	19:48										P	W	30	1:47	8:22	13:57	20:47	
			8.8	4.2	8.6	0.3													8.9	2.1	9.0	2.0	
	S	31	2:02	8:16	13:32	20:43										E	Th	31	2:32	9:14	14:51	21:38	
			9.1	4.0	8.7	0.0										○			9.0	1.4	9.5	2.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Taku Mean Local Civil, for the meridian 117° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.									MAY.									JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:15	10:00	15:44	22:25		S	1	3:20	10:22	16:18	22:47		W	1	4:13	11:27	17:32	23:57
			9.1	0.7	9.9	2.1				9.1	—0.4	10.0	3.2				9.9	—0.5	10.0	3.5
	S	2	3:55	10:47	16:33	23:10		M	2	4:02	11:07	17:06	23:32		Th	2	4:57	12:17	18:15	. . .
			9.2	0.2	10.1	2.3				9.1	—0.6	10.1	3.3				8.7	—0.2	10.0	. . .
	S	3	4:36	11:30	17:21	23:54		Tu	3	4:42	11:48	17:52	. . .		F	3	0:43	5:42	12:50	18:58
			9.2	—0.2	10.2	2.5				9.0	—0.5	10.1	. . .				3.2	8.4	0.4	10.0
	M	4	5:17	12:14	18:09	. . .	S	W	4	0:17	5:24	12:32	18:38		S	4	1:30	6:31	13:30	19:42
			9.2	—0.3	10.0	. . .				3.3	8.8	—0.3	10.0				3.0	8.0	0.9	9.8
	Tu	5	0:38	5:57	12:57	18:57		Th	5	1:02	6:08	13:16	19:23	A	S	5	2:20	7:23	14:15	20:27
			2.8	9.0	—0.2	9.9				3.3	8.5	0.2	9.8				2.7	7.8	1.4	9.7
S	W	6	1:24	6:40	13:42	19:45		F	6	1:52	6:56	14:00	20:11	☾	M	6	3:11	8:18	15:00	21:16
			3.1	8.8	0.2	9.5				3.3	8.0	0.7	9.6				2.4	7.5	2.1	9.5
	Th	7	2:10	7:26	14:29	20:37	☾	S	7	2:42	7:47	14:46	21:00	E	Tu	7	4:04	9:20	15:49	22:04
			3.3	8.4	0.6	9.2				3.2	7.8	1.3	9.4				2.1	7.3	2.8	9.2
☾	F	8	2:59	8:16	15:17	21:30		S	8	3:35	8:45	15:32	21:50		W	8	4:57	10:25	16:38	22:55
			8.4	8.0	1.1	8.9				2.9	7.5	1.9	9.2				1.7	7.4	3.3	9.0
	S	9	3:58	9:14	16:09	22:27	A	M	9	4:30	9:49	16:26	22:43		Th	9	5:51	11:30	17:35	23:45
			3.4	7.7	1.6	8.8				2.7	7.3	2.5	9.0				1.4	7.7	3.7	8.9
	S	10	4:53	10:15	17:06	23:23		Tu	10	5:30	10:54	17:20	23:36		F	10	6:45	12:32	18:37	. . .
			3.2	7.5	2.1	8.7				2.3	7.3	3.0	8.8				1.1	8.2	3.9	. . .
A	M	11	5:54	11:20	18:05	. . .	E	W	11	6:26	11:57	18:20	. . .		S	11	0:32	7:35	13:30	19:40
			2.9	7.5	2.5	. . .				1.8	7.7	3.8	. . .				8.9	0.6	8.7	4.0
	Tu	12	0:16	6:56	12:24	19:03		Th	12	0:25	7:20	12:57	19:18		S	12	1:18	8:25	14:24	20:37
			8.7	2.5	7.8	2.7				8.8	1.4	8.2	3.4				8.9	0.1	9.2	4.1
	W	13	1:05	7:51	13:22	20:00		F	13	1:11	8:10	13:52	20:16		M	13	2:00	9:10	15:15	21:33
			8.8	2.0	8.2	2.7				8.8	1.0	8.7	3.5				8.9	—0.3	9.6	4.0
E	Th	14	1:50	8:40	14:14	20:52		S	14	1:55	8:56	14:44	21:08	●	Tu	14	2:44	9:56	16:03	22:26
			8.8	1.6	8.7	2.7				8.8	0.4	9.3	3.6	N			8.9	—0.5	10.0	3.8
	F	15	2:33	9:26	15:04	21:40	●	S	15	2:37	9:39	15:33	22:00		W	15	3:30	10:40	16:50	23:14
			8.9	1.2	9.1	2.7				8.8	0.0	9.8	3.6				8.9	—0.7	10.3	3.6
●	S	16	3:14	10:08	15:51	22:25		M	16	3:17	10:20	16:20	22:48		Th	16	4:16	11:25	17:35	. . .
			9.0	0.6	9.6	2.8				8.9	—0.4	10.2	3.5				8.8	—0.6	10.4	. . .
	S	17	3:52	10:48	16:37	23:10		Tu	17	3:57	11:03	17:07	23:35	P	F	17	0:02	5:02	12:09	18:21
			9.0	0.2	10.0	2.9				8.9	—0.6	10.4	3.5				3.3	8.8	—0.3	10.3
	M	18	4:32	11:29	17:23	23:54	N	W	18	4:40	11:46	17:54	. . .		S	18	0:50	5:52	12:56	19:06
			8.9	—0.1	10.2	2.9				8.8	—0.5	10.4	. . .				3.0	8.7	0.2	10.0
	Tu	19	5:12	12:09	18:11	. . .		Th	19	0:20	5:24	12:28	18:42		S	19	1:38	6:44	13:42	19:51
			8.9	—0.2	10.3	. . .				3.5	8.6	—0.4	10.3				2.7	8.5	0.7	9.9
	W	20	0:40	5:58	12:50	19:00		F	20	1:10	6:12	13:12	19:30	☽	M	20	2:30	7:40	14:28	20:38
			3.2	8.7	—0.1	10.2				3.4	8.4	0.0	10.1				2.2	8.3	1.5	9.6
N	Th	21	1:27	6:37	13:35	19:49		S	21	2:00	7:00	14:00	20:27	E	Tu	21	3:20	8:40	15:17	21:27
			3.4	8.5	0.1	9.9				3.2	8.2	0.5	9.9				1.8	8.0	2.4	9.3
	F	22	2:14	7:23	14:23	20:40	☽	S	22	2:50	7:57	14:51	21:07		W	22	4:12	9:48	16:11	22:17
			3.5	8.2	0.5	9.7				2.9	8.0	1.2	9.6				1.4	8.0	3.1	9.1
☽	S	23	3:06	8:17	15:14	21:33	P	M	23	3:44	9:00	15:44	22:00		Th	23	5:07	10:57	17:06	23:06
			3.4	7.9	1.0	9.3				2.6	7.9	2.0	9.3				1.0	8.1	3.6	9.0
	S	24	4:08	9:18	16:12	22:32	E	Tu	24	4:40	10:08	16:40	22:54		F	24	6:06	12:05	18:12	23:56
			3.2	7.7	1.5	9.1				2.1	7.7	2.6	8.9				0.6	8.2	4.1	8.9
	M	25	5:02	10:27	17:09	23:30		W	25	5:37	11:19	17:40	23:44		S	25	7:08	13:07	19:13	. . .
			2.9	7.8	2.1	8.9				1.6	8.0	3.2	8.8				0.2	8.5	4.2	. . .
	Tu	26	6:02	11:37	18:15	. . .		Th	26	6:35	12:25	18:42	. . .		S	26	0:45	7:58	14:02	20:11
			2.3	8.1	2.5	. . .				1.2	8.4	3.5	. . .				8.9	0.0	8.8	4.2
P E	W	27	0:22	7:01	12:42	19:17		F	27	0:33	7:32	13:27	19:42	S	M	27	1:32	8:48	14:55	21:06
			8.8	1.8	8.5	2.7				8.8	0.5	8.7	3.8				9.0	—0.3	9.1	4.1
	Th	28	1:10	7:59	13:42	20:16		S	28	1:18	8:24	14:22	20:40	○	Tu	28	2:20	9:36	15:42	22:00
			8.7	1.2	8.9	2.9				8.9	0.0	9.1	3.9				8.9	—0.4	9.3	3.9
	F	29	1:55	8:49	14:38	21:09	○	S	29	2:05	9:12	15:13	21:33		W	29	3:04	10:20	16:25	22:48
			8.9	0.6	9.3	3.1				9.0	—0.4	9.4	3.9				9.0	—0.3	9.6	3.6
○	S	30	2:38	9:37	15:30	22:00		M	30	2:45	9:59	16:02	22:22		Th	30	3:50	11:04	17:06	23:35
			9.1	0.0	9.8	3.2				9.0	—0.6	9.7	3.8				8.8	—0.1	9.8	3.2
							S	Tu	31	3:19	10:42	16:48	23:10							
										9.0	—0.7	9.9	3.7							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Taku Mean Local Civil, for the meridian 117° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:36	11:45	17:50	. . .	E	M	1	0:40	5:52	12:42	18:36		Th	1	1:30	7:11	13:40	19:22
			8.6	0.2	9.9	. . .				1.9	8.7	1.6	9.7				0.9	9.1	2.8	8.9
	S	2	0:20	5:22	12:24	18:30		Tu	2	1:22	6:40	13:22	19:20		F	2	2:14	8:05	14:26	20:08
			2.9	8.4	0.6	10.0				1.6	8.5	2.1	9.5				0.9	9.0	3.2	8.6
A	S	3	1:08	6:10	13:06	19:12		W	3	2:06	7:32	14:08	20:02	☾	S	3	3:00	9:02	15:15	20:56
			2.5	8.3	1.2	9.9				1.5	8.4	2.5	9.2				0.9	8.9	3.6	8.4
	M	4	1:54	7:00	13:48	19:54	☾	Th	4	2:50	8:27	14:48	20:47		S	4	3:51	10:04	16:12	21:50
			2.2	8.0	1.7	9.8				1.3	8.3	3.0	9.0				0.9	8.8	3.9	8.1
E	Tu	5	2:42	7:54	14:30	20:40		F	5	3:40	9:27	15:36	21:36	N	M	5	4:48	11:07	17:17	22:49
			1.9	7.8	2.3	9.5				1.2	8.3	3.5	8.7				1.1	8.7	3.9	8.0
☾	W	6	3:29	8:53	15:15	21:27		S	6	4:31	10:31	16:35	22:26		Tu	6	5:49	12:09	18:22	23:50
			1.6	7.8	2.9	9.2				1.1	8.3	3.8	8.5				1.1	8.7	3.7	8.1
	Th	7	4:19	9:55	16:04	22:14		S	7	5:26	11:36	17:40	23:20		W	7	6:51	13:05	19:22	. . .
			1.4	7.8	3.5	9.0				0.8	8.4	4.0	8.5				1.1	8.8	3.3	. . .
	F	8	5:11	11:00	17:00	23:04	N	M	8	6:24	12:38	18:45	. . .		Th	8	0:50	7:51	13:56	20:22
			1.2	8.0	3.8	8.8				0.7	8.7	4.1	. . .				8.4	1.1	8.9	2.8
	S	9	6:04	12:04	18:05	23:54		Tu	9	0:15	7:22	13:35	19:47		F	9	1:47	8:45	14:42	21:13
			0.9	8.2	4.1	8.8				8.5	0.5	8.8	3.9				8.9	1.2	9.1	2.2
	S	10	7:00	13:03	19:09	. . .		W	10	1:10	8:17	14:26	20:45	P	S	10	2:42	9:36	15:25	22:02
			0.6	8.5	4.3	. . .				8.6	0.4	9.1	3.5	●			9.2	1.3	9.3	1.7
	M	11	0:43	7:52	14:00	20:12	●	Th	11	2:02	9:10	15:13	21:37	E	S	11	3:34	10:26	16:05	22:47
			8.7	0.2	9.0	4.2				8.9	0.2	9.3	3.0				9.7	1.4	9.5	1.1
N	Tu	12	1:33	8:43	14:52	21:10	P	F	12	2:53	10:00	15:58	22:27		M	12	4:22	11:10	16:47	23:31
			8.8	—0.2	9.4	4.0				9.1	0.2	9.6	2.5				10.0	1.5	9.4	0.6
●	W	13	2:21	9:32	15:40	22:02		S	13	3:45	10:47	16:40	23:14		Tu	13	5:13	11:55	17:27	. . .
			8.8	—0.4	9.8	3.6				9.4	0.4	9.7	2.0				10.0	2.0	9.3	. . .
	Th	14	3:08	10:20	16:27	22:52	E	S	14	4:36	11:32	17:23	23:59		W	14	0:16	6:04	12:38	18:07
			8.9	—0.3	9.9	3.3				9.5	0.7	9.7	1.5				0.2	9.9	2.4	9.2
P	F	15	3:57	11:06	17:10	23:40		M	15	5:26	12:17	18:04	. . .		Th	15	1:02	6:52	13:24	18:50
			9.0	—0.3	10.0	2.7				9.6	1.2	9.7	. . .				0.1	9.7	2.8	9.0
	S	16	4:47	11:50	17:53	. . .		Tu	16	0:44	6:17	13:00	18:45	☽	F	16	1:49	7:45	14:12	19:36
			9.1	0.1	10.0	. . .				1.1	9.5	1.7	9.4				0.2	9.3	3.2	8.7
	S	17	0:27	5:39	12:37	18:37		W	17	1:32	7:09	13:44	19:28	S	S	17	2:40	8:40	15:00	20:25
			2.3	9.0	0.6	9.9				0.8	9.2	2.4	9.3				0.4	9.0	3.5	8.4
E	M	18	1:12	6:30	13:20	19:22	☽	Th	18	2:19	8:06	14:32	20:14		S	18	3:30	9:40	15:55	21:20
			1.9	8.9	1.2	9.8				0.6	9.0	3.0	9.0				0.8	8.7	3.6	8.1
	Tu	19	2:00	7:25	14:08	20:05		F	19	3:10	9:05	15:20	21:02		M	19	4:24	10:40	16:55	22:20
			1.5	8.6	2.0	9.4				0.6	8.6	3.5	8.8				1.2	8.5	3.6	7.8
☽	W	20	2:50	8:26	14:53	20:52		S	20	4:04	10:07	16:18	21:55		Tu	20	5:23	11:40	17:57	23:23
			1.3	8.5	2.7	9.1				0.6	8.3	3.8	8.5				1.7	8.5	3.4	7.8
	Th	21	3:42	9:27	15:43	21:39	S	S	21	5:02	11:11	17:15	22:50		W	21	6:22	12:33	19:00	. . .
			1.0	8.2	3.3	9.0				0.8	8.2	4.0	8.3				1.9	8.5	3.0	. . .
	F	22	4:36	10:32	16:42	22:30		M	22	6:00	12:12	18:20	23:48		Th	22	0:25	7:21	13:22	19:57
			0.8	8.1	3.9	8.9				1.0	8.2	4.0	8.2				7.9	2.1	8.7	2.7
	S	23	5:35	11:40	17:41	23:22		Tu	23	6:59	13:08	19:23	. . .	A	F	23	1:22	8:14	14:06	20:49
			0.6	8.1	4.3	8.7				1.1	8.3	3.7	. . .				8.2	2.2	8.9	2.2
	S	24	6:32	12:42	18:43	. . .		W	24	0:45	7:54	13:58	20:19		S	24	2:16	9:04	14:46	21:35
			0.5	8.2	4.3	. . .				8.3	1.1	8.7	3.4				8.6	2.2	9.0	1.6
S	M	25	0:15	7:30	13:38	19:44		Th	25	1:39	8:47	14:42	21:12	○	S	25	3:02	9:50	15:27	22:17
			8.7	0.4	8.5	4.3				8.4	1.2	8.9	2.8	E			8.9	2.2	9.1	1.1
	Tu	26	1:07	8:23	14:28	20:43	○	F	26	2:30	9:34	15:24	22:00		M	26	3:50	10:30	16:06	22:58
			8.7	0.3	8.7	3.9				8.6	1.2	9.2	2.4				9.4	2.3	9.2	0.7
☾	W	27	1:56	9:12	15:14	21:36	A	S	27	3:18	10:16	16:02	22:44		Tu	27	4:35	11:14	16:44	23:37
			8.6	0.3	9.0	3.5				8.8	1.4	9.4	2.0				9.6	2.4	9.1	0.6
	Th	28	2:44	9:57	15:56	22:25	E	S	28	4:04	10:57	16:42	23:26		W	28	5:20	11:54	17:24	. . .
			9.7	0.3	9.3	3.1				9.0	1.5	9.5	1.6				9.8	2.6	9.0	. . .
	F	29	3:33	10:40	16:37	23:12		M	29	4:50	11:38	17:20	. . .		Th	29	0:17	6:07	12:35	18:08
			8.7	0.6	9.5	2.6				9.1	1.8	9.5	. . .				0.3	9.9	2.8	8.9
	S	30	4:20	11:22	17:17	23:56		Tu	30	0:07	5:36	12:17	18:00		F	30	0:57	6:54	13:21	18:45
			8.8	0.7	9.7	2.2				1.3	9.2	2.0	9.4				0.3	9.8	3.1	8.9
A	S	31	5:05	12:04	17:57	. . .		W	31	0:48	6:22	12:58	18:42							
			8.7	1.2	9.8	. . .				1.1	9.2	2.4	9.1							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Taku Mean Local Civil, for the meridian 117° 50′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:13 5.2	11:20 —0.1	17:36 5.5	23:42 0.2
	S	2	5:45 5.1	11:57 —0.3	18:17 5.4	. . . . . .
	S	3	0:18 0.6	6:15 5.1	12:30 —0.3	18:58 5.1
	M	4	0:55 1.0	6:44 4.9	13:10 —0.2	19:39 4.6
	Tu	5	1:30 1.5	7:14 4.7	13:50 0.1	20:23 4.2
S	W	6	2:10 2.0	7:44 4.4	14:35 0.5	21:15 3.7
	Th	7	2:52 2.4	8:18 4.0	15:28 0.9	22:24 3.4
☾	F	8	3:52 2.7	9:07 3.5	16:33 1.3	. . . . . .
	S	9	0:04 3.3	5:27 2.7	10:42 3.2	17:56 1.5
	S	10	1:37 3.4	7:08 2.7	12:56 3.2	19:17 1.5
A	M	11	2:27 3.7	8:16 2.2	14:16 3.5	20:21 1.3
	Tu	12	3:02 4.0	9:00 1.7	15:08 3.9	21:10 1.1
	W	13	3:32 4.3	9:37 1.2	15:48 4.3	21:48 0.9
E	Th	14	4:00 4.5	10:08 0.8	16:22 4.6	22:24 0.8
	F	15	4:27 4.7	10:40 0.4	16:55 4.9	22:57 0.7
●	S	16	4:55 4.8	11:10 0.1	17:30 5.0	23:30 0.8
	S	17	5:22 4.8	11:42 —0.2	18:04 5.1	. . . . . .
	M	18	0:05 1.0	5:50 4.8	12:18 —0.3	18:40 5.0
	Tu	19	0:40 1.3	6:17 4.7	12:50 —0.4	19:22 4.9
	W	20	1:19 1.9	6:48 4.6	13:30 —0.2	20:10 4.6
N	Th	21	2:02 2.0	7:24 4.4	14:17 0.1	21:04 4.2
	F	22	2:57 2.4	8:11 4.0	15:14 0.4	22:16 4.0
☽	S	23	4:09 2.6	9:16 3.6	16:26 0.8	23:40 3.8
	S	24	5:40 2.5	11:10 3.3	17:48 1.0	. . . . . .
	M	25	1.00 4.0	7:05 2.1	13:02 3.6	19:12 1.0
	Tu	26	2:00 4.2	8:07 1.5	14:15 4.1	20:22 1.0
P E	W	27	2:46 4.4	8:56 1.0	15:12 4.5	21:16 0.9
	Th	28	3:25 4.7	9:38 0.4	16:02 5.0	22:00 0.8
	F	29	4:04 4.8	10:17 —0.1	16:47 5.2	22:42 0.9
○	S	30	4:38 5.0	10:54 —0.5	17:30 5.3	23:19 1.0

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	5:09 5.0	11:30 —0.7	18:12 5.2	23:56 1.3
	M	2	5:40 5.0	12:09 —0.7	18:48 5.0	. . . . . .
	Tu	3	0:31 1.6	6:08 4.9	12:45 —0.5	19:27 4.7
S	W	4	1:07 1.9	6:40 4.6	13:24 —0.2	20:07 4.3
	Th	5	1:47 2.2	7:11 4.3	14:06 0.3	20:52 4.0
	F	6	2:35 2.4	7:48 3.8	14:50 0.7	21:47 3.8
☾	S	7	3:36 2.6	8:36 3.4	15:43 1.1	22:55 3.6
	S	8	4:56 2.6	10:02 3.0	16:52 1.5	. . . . . .
A	M	9	0:07 3.7	6:25 2.4	12:18 2.9	18:22 1.7
	Tu	10	1:09 3.8	7:33 1.9	13:50 3.3	19:30 1.7
E	W	11	1:58 4.0	8:22 1.4	14:46 3.7	20:24 1.6
	Th	12	2:36 4.2	9:00 1.0	15:27 4.1	21:09 1.5
	F	13	3:10 4.4	9:35 0.5	16:06 4.5	21:50 1.4
	S	14	3:46 4.5	10:10 0.0	16:43 4.8	22:30 1.4
●	S	15	4:19 4.7	10:44 —0.4	17:20 5.0	23:07 1.4
	M	16	4:50 4.7	11:20 —0.7	17:58 5.1	23:46 1.5
	Tu	17	5:22 4.8	11:57 —0.8	18:37 5.1	. . . . . .
N	W	18	0:24 1.7	5:53 4.8	12:34 —0.8	19:18 5.0
	Th	19	1:10 1.9	6:30 4.6	13:50 —0.5	20:06 4.7
	F	20	1:55 2.1	7:11 4.4	14:02 —0.2	20:57 4.5
	S	21	2:50 2.3	8:01 4.0	14:56 0.3	21:55 4.3
☽	S	22	4:00 2.3	9:14 3.6	16:00 0.8	23:02 4.1
P	M	23	5:16 2.1	10:57 3.3	17:19 1.2	. . . . . .
E	Tu	24	0:08 4.1	6:33 1.7	12:44 3.5	18:40 1.3
	W	25	1:08 4.1	7:36 1.2	14:22 3.9	19:49 1.6
	Th	26	2:00 4.3	8:27 0.6	15:09 4.3	20:45 1.7
	F	27	2:44 4.5	9:13 0.0	16:00 4.6	21:33 1.7
	S	28	3:25 4.7	10:00 —0.5	16:48 4.9	22:18 1.7
○	S	29	4:04 4.8	10:37 —0.8	17:28 5.0	22:56 1.8
	M	30	4:40 4.9	11:15 —0.9	18:07 4.9	23:33 1.9
S	Tu	31	5:12 4.9	11:54 —0.8	18:42 4.8	. . . . . .

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	0:08 2.0	5:44 4.8	12:27 —0.6	19:16 4.7
	Th	2	0:50 2.1	6:18 4.5	13:03 —0.3	19:52 4.6
	F	3	1:30 2.2	6:50 4.2	13:39 0.0	20:29 4.3
	S	4	2:18 2.3	7:27 3.8	14:18 0.5	21:10 4.2
A	S	5	3:11 2.4	8:17 3.4	15:02 1.0	21:58 4.1
☾	M	6	4:15 2.3	9:22 3.1	16:00 1.4	22:50 4.0
	Tu	7	5:27 2.1	11:07 2.9	17:09 1.9	23:46 3.9
E	W	8	6:33 1.8	12:53 3.1	18:22 2.0	. . . . . .
	Th	9	0:43 4.0	7:29 1.3	14:06 3.4	19:28 2.1
	F	10	1:36 4.1	8:18 0.7	15:05 3.9	20:27 2.1
	S	11	2:22 4.3	9:04 0.2	15:52 4.3	21:18 2.0
	S	12	3:08 4.5	9:44 —0.3	16:33 4.7	22:07 1.9
	M	13	3:50 4.7	10:23 —0.7	17:13 5.0	22:50 1.8
● N	Tu	14	4:27 4.8	11:03 —1.0	17:52 5.2	23:33 1.9
	W	15	5:02 5.0	11:45 —1.1	18:32 5.2	. . . . . .
	Th	16	0:14 1.9	5:42 4.9	12:25 —1.0	19:12 5.2
P	F	17	0:57 1.9	6:24 4.8	13:07 —0.8	19:54 5.0
	S	18	1:44 1.9	7:10 4.5	13:51 —0.4	20:40 4.9
	S	19	2:35 1.9	8:03 4.1	14:40 0.2	21:27 4.6
	M	20	3:35 1.8	9:10 3.7	15:38 0.8	22:18 4.4
☽ E	Tu	21	4:42 1.6	10:36 3.5	16:45 1.4	23:11 4.2
	W	22	5:49 1.3	12:10 3.4	17:55 1.9	. . . . . .
	Th	23	0:12 4.2	6:57 0.9	13:48 3.6	19:08 2.2
	F	24	1:12 4.2	8:02 0.4	15:05 4.0	20:13 2.3
	S	25	2:05 4.4	8:55 —0.1	16:02 4.2	21:10 2.4
	S	26	2:52 4.5	9:42 —0.5	16:48 4.5	21:57 2.3
S	M	27	3:38 4.7	10:23 —0.7	17:27 4.7	22:40 2.3
○	Tu	28	4:20 4.7	11:02 —0.6	18:02 4.8	23:17 2.2
	W	29	4:57 4.7	11:37 —0.7	18:32 4.7	23:55 2.1
	Th	30	5:32 4.7	12:10 —0.6	19:00 4.7	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon, ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	0:32 2.0	6:04 4.5	12:44 −0.4	19:28 4.7
	S	2	1:12 2.0	6:42 4.3	13:18 0.0	20:00 4.6
A	S	3	1:52 2.0	7:15 4.0	13:52 0.3	20:30 4.6
	M	4	2:38 1.9	8:00 3.7	14:30 0.8	21:04 4.5
E	Tu	5	3:26 1.8	8:52 3.4	15:13 1.3	21:42 4.3
☾	W	6	4:23 1.7	10:02 3.1	16:05 1.8	22:30 4.2
	Th	7	5:28 1.5	11:30 2.9	17:14 2.2	23:28 4.1
	F	8	6:34 1.2	13:16 3.1	18:36 2.5	. . . . . .
	S	9	0:34 4.0	7:39 0.7	14:40 3.6	19:49 2.6
	S	10	1:39 4.2	8:34 0.2	15:39 4.0	20:49 2.4
	M	11	2:39 4.4	9:23 −0.3	16:25 4.5	21:47 2.2
N	Tu	12	3:30 4.7	10:10 −0.8	17:02 4.9	22:34 2.0
●	W	13	4:14 4.9	10:51 −1.1	17:52 5.1	23:17 1.8
	Th	14	4:56 5.0	11:32 −1.2	18:19 5.2	. . . . . .
P	F	15	0:00 1.6	5:40 5.1	12:14 −1.1	18:55 5.4
	S	16	0:44 1.5	6:24 5.0	12:54 −0.8	19:32 5.2
	S	17	1:27 1.4	7:10 4.7	13:37 −0.3	20:10 5.0
E	M	18	2:14 1.3	7:59 4.4	14:22 0.3	20:49 4.8
	Tu	19	3:05 1.2	8:56 4.0	15:12 1.0	21:30 4.6
☽	W	20	4:00 1.2	10:02 3.6	16:04 1.7	22:17 4.3
	Th	21	5:05 1.1	11:37 3.3	17:07 2.3	23:13 4.2
	F	22	6:20 0.9	13:36 3.4	18:24 2.6	. . . . . .
	S	23	0:22 4.1	7:35 0.5	15:04 3.7	19:44 2.7
	S	24	1:32 4.1	8:36 0.1	16:00 4.0	20:49 2.7
S	M	25	2:31 4.2	9:30 −0.2	16:44 4.3	21:44 2.7
	Tu	26	3:22 4.4	10:12 −0.4	17:17 4.5	22:24 2.3
○	W	27	4:06 4.6	10:47 −0.5	17:44 4.6	23:04 2.1
	Th	28	4:47 4.6	11:24 −0.5	18:09 4.7	23:40 1.8
	F	29	5:26 4.6	11:52 −0.4	18:32 4.7	. . . . . .
	S	30	0:13 1.7	5:57 4.5	12:24 −0.3	18:56 4.8
A	S	31	0:48 1.5	6:29 4.4	12:55 0.0	19:20 4.8

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	1:24 1.4	7:02 4.2	13:28 0.4	19:48 4.8
	Tu	2	2:02 1.4	7:42 4.0	14:02 0.8	20:18 4.6
	W	3	2:40 1.3	8:24 3.7	14:37 1.3	20:39 4.5
☾	Th	4	3:28 1.3	9:12 3.5	15:18 1.8	21:27 4.3
	F	5	4:25 1.3	10:32 3.1	16:19 2.3	22:22 4.1
	S	6	5:40 1.1	12:24 3.2	17:48 2.7	23:36 3.9
	S	7	6:56 0.8	14:17 3.5	19:20 2.7	. . . . . .
N	M	8	1:02 4.0	8:06 0.3	15:20 4.1	20:34 2.6
	Tu	9	2:17 4.2	9:03 −0.2	16:08 4.5	21:33 2.2
	W	10	3:15 4.6	9:53 −0.6	16:47 4.8	22:20 1.8
●	Th	11	4:07 5.0	10:37 −0.9	17:22 5.1	23:02 1.4
P	F	12	4:52 5.2	11:20 −1.0	17:55 5.3	23:42 1.1
	S	13	5:37 5.3	12:00 −0.9	18:27 5.3	. . . . . .
E	S	14	0:28 0.8	6:18 5.2	12:40 −0.5	19:00 5.2
	M	15	1:05 0.7	7:00 5.0	13:18 0.0	19:34 5.1
	Tu	16	1:46 0.6	7:46 4.7	14:00 0.6	20:09 4.9
	W	17	2:28 0.6	8:37 4.2	14:43 1.3	20:44 4.6
☽	Th	18	3:20 0.7	9:38 3.7	15:29 1.9	21:24 4.3
	F	19	4:22 0.9	11:05 3.3	16:28 2.5	22:15 4.1
	S	20	5:39 1.0	13:17 3.3	17:42 2.7	23:32 3.8
S	S	21	7:02 0.8	14:52 3.6	19:20 2.7	. . . . . .
	M	22	1:06 3.8	8:16 0.6	15:46 3.9	20:42 2.7
	Tu	23	2:21 4.0	9:12 0.3	16:22 4.2	21:32 2.4
	W	24	3:18 4.2	9:54 0.0	16:50 4.4	22:13 2.1
	Th	25	4:02 4.4	10:30 −0.1	17:15 4.6	22:48 1.7
○	F	26	4:40 4.6	11:00 −0.1	17:35 4.6	23:20 1.4
A	S	27	5:14 4.7	11:32 0.0	17:55 4.8	23:50 1.1
	S	28	5:47 4.7	12:02 0.1	18:18 4.9	. . . . . .
E	M	29	0:21 1.0	6:16 4.6	12:34 0.3	18:41 4.9
	Tu	30	0:52 0.8	6:47 4.6	13:02 0.6	19:07 4.9
	W	31	1:22 0.7	7:21 4.4	13:33 1.0	19:33 4.7

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	1:58 0.8	8:00 4.1	14:08 1.4	20:04 4.5
	F	2	2:42 0.8	8:50 3.8	14:52 1.9	20:43 4.2
☾	S	3	3:37 0.9	10:00 3.4	15:52 2.4	21:33 3.9
	S	4	4:53 1.0	11:48 3.3	17:21 2.7	22:52 3.7
N	M	5	6:18 0.9	13:40 3.6	18:57 2.7	. . . . . .
	Tu	6	0:42 3.8	7:37 0.6	14:52 4.0	20:19 2.4
	W	7	2:05 4.1	8:42 0.2	15:39 4.4	21:17 1.9
	Th	8	3:06 4.5	9:35 −0.2	16:16 4.8	22:07 1.4
	F	9	4:00 5.0	10:22 −0.4	16:50 5.0	22:42 0.9
P	S	10	4:48 5.3	11:03 −0.5	17:23 5.2	23:22 0.5
● E	S	11	5:27 5.5	11:45 −0.3	17:55 5.3	. . . . . .
	M	12	0:00 0.2	6:07 5.4	12:24 0.0	18:27 5.2
	Tu	13	0:40 0.0	6:50 5.3	13:00 0.4	19:00 5.0
	W	14	1:16 0.0	7:35 4.9	13:37 1.0	19:30 4.9
	Th	15	1:59 0.1	8:22 4.4	14:16 1.6	20:00 4.5
	F	16	2:46 0.4	9:17 3.8	15:00 2.1	20:39 4.2
☽ S	S	17	3:42 0.8	10:35 3.4	15:55 2.7	21:25 3.8
	S	18	4:55 1.1	12:32 3.3	17:20 2.7	22:50 3.5
	M	19	6:18 1.2	14:17 3.5	19:07 2.7	. . . . . .
	Tu	20	0:46 3.4	7:40 1.1	15:09 3.8	20:29 2.5
	W	21	2:14 3.6	8:40 0.9	15:42 4.1	21:16 2.1
	Th	22	3:10 4.0	9:27 0.7	16:07 4.3	21:52 1.7
A	F	23	3:54 4.3	10:07 0.6	16:30 4.5	22:25 1.2
	S	24	4:29 4.5	10:41 0.5	16:54 4.7	22:55 0.9
○ E	S	25	5:02 4.7	11:10 0.5	17:17 4.8	23:24 0.6
	M	26	5:31 4.8	11:41 0.6	17:42 4.8	23:54 0.4
	Tu	27	6:00 4.9	12:09 0.7	18:05 4.8	. . . . . .
	W	28	0:24 0.2	6:34 4.8	12:40 1.0	18:30 4.7
	Th	29	0:54 0.2	7:10 4.7	13:14 1.3	18:58 4.6
	F	30	1:30 0.2	7:50 4.4	13:52 1.7	19:30 4.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	0:26 8.7	8:20 —0.5	12:47 9.4	20:42 —0.7
	S	2	1:05 9.2	9:01 —0.8	13:28 9.3	21:20 —0.6
	S	3	1:46 9.5	9:42 —0.9	14:08 8.9	21:57 —0.4
	M	4	2:23 9.4	10:21 —0.7	14:48 8.4	22:33 0.2
	Tu	5	3:00 9.2	11:05 —0.3	15:30 7.7	23:14 0.6
S	W	6	3:40 8.6	11:50 0.3	16:15 6.9	23:56 1.3
	Th	7	4:26 7.9	12:42 0.9	17:07 6.1	. . . . . .
☾	F	8	0:46 1.9	5:20 7.2	13:42 1.5	18:10 5.4
	S	9	1:49 2.4	6:25 6.5	14:55 1.8	19:30 5.1
	S	10	3:10 2.7	7:41 6.2	16:12 1.8	20:50 5.4
A	M	11	4:32 2.7	8:59 6.5	17:17 1.5	21:52 5.9
	Tu	12	5:39 2.1	10:00 7.0	18:18 1.0	22:40 6.7
	W	13	6:30 1.6	10:50 7.5	18:50 0.6	23:20 7.3
E	Th	14	7:11 1.0	11:34 8.0	19:28 0.3	23:57 8.0
	F	15	7:48 0.6	12:10 8.3	20:04 0.2	. . . . . .
●	S	16	0:30 8.6	8:24 0.2	12:44 8.6	20:35 0.2
	S	17	1:00 9.0	8:58 0.1	13:20 8.6	21:07 0.4
	M	18	1:34 9.3	9:31 0.1	13:56 8.5	21:40 0.4
	Tu	19	2:06 9.4	10:09 0.1	14:32 8.2	22:17 0.9
	W	20	2:42 9.2	10:50 0.2	15:12 7.7	22:55 1.2
N	Th	21	3:23 8.8	11:34 0.4	15:58 7.1	23:40 1.6
	F	22	4:20 8.2	12:28 0.8	16:53 6.3	. . . . . .
☽	S	23	0:32 2.0	5:05 7.5	13:30 1.1	17:58 5.8
	S	24	1:39 2.3	6:12 7.1	14:42 1.3	19:16 5.6
	M	25	3:00 2.5	7:30 6.8	15:57 1.3	20:34 6.2
	Tu	26	4:22 2.2	8:47 7.2	17:04 1.0	21:36 6.8
P E	W	27	5:30 1.6	9:55 7.7	17:59 0.6	22:30 7.7
	Th	28	6:26 0.9	10:52 8.2	18:48 0.2	23:17 8.4
	F	29	7:13 0.2	11:42 8.5	19:35 0.0	. . . . . .
○	S	30	0:00 9.0	7:59 —0.4	12:26 8.6	20:13 —0.1

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	0:40 9.5	8:42 —0.7	13:17 8.5	20:52 —0.1
	M	2	1:17 9.7	9:25 —0.9	13:47 8.2	21:30 0.1
	Tu	3	1:57 9.5	10:05 —0.7	14:27 7.8	22:07 0.5
S	W	4	2:35 9.4	10:50 —0.3	15:10 7.2	22:45 0.9
	Th	5	3:15 8.8	11:31 0.1	15:55 6.6	23:27 1.5
	F	6	3:58 8.2	12:20 0.6	16:44 6.0	. . . . . .
☾	S	7	0:17 1.9	4:47 7.4	13:12 1.1	17:42 5.5
	S	8	1:17 2.4	5:46 6.7	14:15 1.6	18:50 5.3
A	M	9	2:30 2.7	6:55 6.2	15:22 1.7	20:00 5.5
	Tu	10	3:49 2.8	8:10 6.2	16:23 1.7	21:05 6.1
E	W	11	4:57 2.5	9:15 6.5	17:22 1.4	21:55 6.9
	Th	12	5:52 1.9	10:10 6.9	18:04 1.1	22:38 7.5
	F	13	6:37 1.4	10:56 7.5	18:47 0.9	23:18 8.3
	S	14	7:17 0.8	11:38 7.8	19:27 0.7	23:55 8.9
●	S	15	7:56 0.4	12:17 8.0	20:02 0.7	. . . . . .
	M	16	0:30 9.4	8:35 0.0	12:58 8.2	20:38 0.8
	Tu	17	1:06 9.7	9:14 —0.1	13:38 8.1	21:15 0.9
N	W	18	1:46 9.7	9:55 —0.2	14:17 7.9	21:54 1.0
	Th	19	2:23 9.6	10:38 —0.2	15:00 7.4	22:35 1.3
	F	20	3:05 9.2	11:25 —0.1	15:50 6.9	23:22 1.6
	S	21	3:55 8.6	12:17 0.2	16:44 6.5	. . . . . .
☽	S	22	0:17 1.8	4:48 7.9	13:15 0.6	17:44 6.0
P	M	23	1:22 2.1	5:52 7.2	14:17 0.9	18:53 5.9
E	Tu	24	2:38 2.2	7:03 6.8	15:22 1.1	20:02 6.3
	W	25	3:55 2.2	8:20 6.8	16:27 1.1	21:05 6.9
	Th	26	5:04 1.3	9:29 7.1	17:25 1.0	22:00 7.8
	F	27	6:02 1.0	10:28 7.5	18:18 0.7	22:50 8.5
	S	28	6:56 0.4	11:20 7.7	19:03 0.5	23:37 9.1
○	S	29	7:43 —0.2	12:05 7.7	19:43 0.5	. . . . . .
	M	30	0:17 9.6	8:27 —0.6	12:47 7.7	20:26 0.5
S	Tu	31	0:57 9.7	9:09 —0.7	13:30 7.5	21:06 0.5

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	1:36 9.7	9:50 —0.6	14:10 7.3	21:43 0.8
	Th	2	2:15 9.5	10:30 —0.4	14:50 7.0	22:22 1.2
	F	3	2:54 9.0	11:12 —0.1	15:33 6.7	23:04 1.4
	S	4	3:34 8.5	11:55 0.3	16:20 6.3	23:51 1.9
A	S	5	4:18 7.7	12:42 0.8	17:10 5.8	. . . . . .
☾	M	6	0:44 2.2	5:10 7.0	13:32 1.2	18:00 5.8
E	Tu	7	1:47 2.6	6:10 6.4	14:26 1.5	19:07 5.8
	W	8	2:57 2.7	7:15 6.1	15:25 1.7	20:10 6.1
	Th	9	4:07 2.8	8:22 6.2	16:20 1.7	21:07 6.8
	F	10	5:07 2.3	9:22 6.5	17:16 1.5	21:57 7.6
	S	11	6:02 1.7	10:17 6.9	18:05 1.4	22:42 8.4
	S	12	6:49 1.0	11:07 7.4	18:50 1.2	23:25 9.0
	M	13	7:32 0.5	11:53 7.6	19:33 1.1	. . . . . .
N ●	Tu	14	0:06 9.5	8:16 0.0	12:37 7.7	20:14 1.0
	W	15	0:46 9.9	9:00 —0.6	13:20 7.8	20:56 1.0
	Th	16	1:27 10.1	9:42 —0.6	14:05 7.8	21:38 0.9
P	F	17	2:08 10.0	10:25 —0.6	14:48 7.5	22:20 1.0
	S	18	2:51 9.7	11:11 10.6	15:35 7.1	23:10 1.1
	S	19	3:40 9.0	12:02 —0.2	16:27 6.8	. . . . . .
	M	20	0:02 1.3	4:32 8.3	12:52 0.2	17:22 6.5
☽ E	Tu	21	1:04 1.5	5:30 7.5	13:48 0.7	18:22 6.4
	W	22	2:13 1.9	6:37 6.8	14:47 1.1	19:25 6.5
	Th	23	3:25 2.0	7:48 6.5	15:48 1.3	20:32 7.0
	F	24	4:35 1.8	8:58 6.5	16:51 1.4	21:31 7.6
	S	25	5:42 1.3	10:02 6.6	17:48 1.2	22:28 8.3
	S	26	6:39 0.6	11:00 6.9	18:38 1.0	23:15 8.8
S	M	27	7:28 0.1	11:48 6.9	19:24 0.8	23:59 9.2
○	Tu	28	8:15 —0.3	12:32 6.9	20:07 0.7	. . . . . .
	W	29	0:40 9.5	8:55 —0.6	13:12 7.0	20:47 0.7
	Th	30	1:20 9.5	9:33 —0.6	13:52 7.0	21:25 0.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Shanghai Mean Local Civil, for the meridian 121° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	1:57 9.4	10:12 —0.5	14:33 7.1	22:04 1.2
	S	2	2:35 9.1	10:50 —0.2	15:10 7.0	22:44 1.5
A	S	3	3:11 8.7	11:26 0.1	15:52 6.7	23:25 1.9
	M	4	3:52 8.1	12:07 0.5	16:36 6.5	. . .
E	Tu	5	0:13 2.3	4:37 7.5	12:48 0.9	17:20 6.3
☾	W	6	1:07 2.6	5:26 6.8	13:35 1.3	18:15 6.2
	Th	7	2:06 2.8	6:22 6.2	14:27 1.7	19:13 6.4
	F	8	3:11 2.7	7:28 5.8	15:30 1.9	20:17 6.7
	S	9	4:20 2.4	8:37 5.9	16:30 2.0	21:13 7.4
	S	10	5:24 1.9	9:42 6.3	17:28 1.9	22:10 8.2
	M	11	6:22 1.2	10:40 6.8	18:20 1.6	23:00 8.8
N	Tu	12	7:12 0.5	11:32 7.2	19:10 1.2	23:45 9.5
●	W	13	8:00 —0.1	12:20 7.5	19:55 1.0	. . .
	Th	14	0:29 10.0	8:43 —0.6	13:05 7.7	20:39 0.7
P	F	15	1:11 10.2	9:27 —0.8	13:47 7.7	21:23 0.5
	S	16	1:55 10.1	10:09 —0.9	14:32 7.8	22:10 0.5
	S	17	2:40 9.8	10:52 —0.8	15:17 7.7	22:56 0.6
E	M	18	3:25 9.3	11:37 —0.5	16:03 7.5	23:45 0.7
	Tu	19	4:15 8.6	12:25 0.1	16:50 7.2	. . .
☽	W	20	0:42 1.1	5:07 7.7	13:14 0.6	17:45 6.9
	Th	21	1:44 1.5	6:08 6.8	14:09 1.1	18:49 6.7
	F	22	2:48 1.8	7:16 6.1	15:12 1.6	19:56 6.8
	S	23	4:07 1.8	8:30 5.8	16:19 1.8	21:03 7.3
	S	24	5:20 1.5	9:40 5.9	17:22 1.6	22:05 7.8
S	M	25	6:22 0.9	10:42 6.2	18:20 1.5	22:57 8.4
	Tu	26	7:15 0.3	11:32 6.5	19:08 1.1	23:45 8.8
○	W	27	7:59 —0.1	12:16 6.7	19:52 0.9	. . .
	Th	28	0:25 9.1	8:38 —0.4	12:57 7.0	20:32 0.7
	F	29	1:02 9.3	9:15 —0.6	13:32 7.2	21:09 0.7
	S	30	1:42 9.2	9:50 —0.5	14:10 7.3	21:46 0.9
A	S	31	2:12 9.0	10:22 —0.2	14:43 7.4	22:22 1.0

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	2:48 8.8	10:55 0.1	15:20 7.4	23:00 1.2
	Tu	2	3:25 8.3	11:30 0.4	15:55 7.2	23:42 1.5
	W	3	4:05 7.8	12:06 0.9	16:35 7.0	. . .
☾	Th	4	0:28 1.9	4:47 7.0	12:48 1.3	17:23 6.8
	F	5	1:17 2.1	5:42 6.3	13:40 1.7	18:20 6.6
	S	6	2:21 2.3	6:45 5.7	14:42 2.1	19:23 6.6
	S	7	3:36 2.4	8:00 5.6	15:50 2.3	20:35 7.2
N	M	8	4:50 1.9	9:14 5.9	16:58 2.2	21:38 7.8
	Tu	9	5:57 1.3	10:19 6.5	18:00 1.9	22:36 8.6
	W	10	6:52 0.5	11:14 6.9	18:53 1.3	23:27 9.2
●	Th	11	7:40 —0.2	12:02 7.5	19:40 0.8	. . .
P	F	12	0:12 9.8	8:24 —0.7	12:45 7.9	20:26 0.4
	S	13	0:56 10.2	9:07 —1.0	13:28 8.2	21:10 0.0
E	S	14	1:40 10.2	9:47 —1.0	14:10 8.4	21:54 —0.1
	M	15	2:22 9.9	10:27 —0.8	14:52 8.4	22:38 —0.2
	Tu	16	3:05 9.3	11:10 —0.5	15:35 8.2	23:26 0.1
	W	17	3:52 8.5	11:52 0.0	16:20 7.9	. . .
☽	Th	18	0:17 0.5	4:42 7.5	12:40 0.7	17:10 7.4
	F	19	1:10 1.1	5:35 6.6	13:35 1.3	18:10 7.0
	S	20	2:20 1.6	6:45 5.8	14:39 1.8	19:18 6.7
S	S	21	3:39 1.8	8:05 5.5	15:50 2.1	20:33 6.9
	M	22	4:57 1.7	9:22 5.6	17:00 2.0	21:43 7.3
	Tu	23	6:03 1.1	10:27 5.9	18:02 1.6	22:40 7.9
	W	24	6:55 0.6	11:18 6.3	18:54 1.2	23:27 8.4
	Th	25	7:37 0.0	12:00 6.8	19:38 0.8	. . .
○	F	26	0:07 8.8	8:14 —0.3	12:36 7.2	20:17 0.5
A	S	27	0:42 9.0	8:47 —0.4	13:10 7.6	20:52 0.5
E	S	28	1:24 9.1	9:19 —0.3	13:42 7.9	21:26 0.6
	M	29	1:52 9.0	9:50 —0.1	14:15 8.1	22:00 0.6
	Tu	30	2:15 8.8	10:22 0.3	14:47 8.1	22:35 1.0
	W	31	3:00 8.3	10:56 0.6	15:21 8.0	23:13 1.2

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	3:36 7.8	11:34 0.9	16:00 7.7	23:52 1.4
	F	2	4:15 7.2	12:12 1.4	16:40 7.8	. . .
☾	S	3	0:42 1.7	5:04 6.4	13:00 1.8	17:34 6.8
	S	4	1:46 2.0	6:07 5.7	14:02 2.2	18:40 6.6
N	M	5	3:00 2.0	7:27 5.5	15:17 2.4	19:57 6.8
	Tu	6	4:22 1.8	8:52 5.8	16:34 2.4	21:10 7.4
	W	7	5:32 1.2	10:00 6.4	17:41 1.9	22:13 8.2
	Th	8	6:28 0.5	10:56 7.1	18:37 1.2	23:09 9.0
	F	9	7:17 —0.1	11:42 7.8	19:25 0.5	23:56 9.5
P ●	S	10	8:00 —0.6	12:26 8.3	20:12 —0.1	. . .
E	S	11	0:40 9.8	8:43 —0.8	13:05 9.1	20:55 —0.5
	M	12	1:22 9.8	9:21 —0.8	13:45 9.1	21:37 —0.7
	Tu	13	2:05 9.6	10:02 —0.7	14:25 9.1	22:20 —0.6
	W	14	2:48 9.0	10:42 —0.3	15:07 8.9	23:05 —0.2
	Th	15	3:30 8.2	11:22 0.3	15:49 8.5	23:50 0.3
☽	F	16	4:17 7.3	12:08 0.9	16:37 7.9	. . .
S	S	17	0:44 0.9	5:10 6.3	13:00 1.6	17:32 7.2
	S	18	1:50 1.4	6:17 5.5	14:02 2.1	18:40 6.7
	M	19	3:09 1.7	7:40 5.1	15:23 2.4	20:00 6.5
	Tu	20	4:28 1.7	9:00 5.3	16:42 2.3	21:14 6.8
	W	21	5:37 1.3	10:08 5.8	17:47 1.9	22:16 7.4
	Th	22	6:28 0.9	10:57 6.4	18:37 1.3	23:04 7.8
A	F	23	7:10 0.3	11:36 6.9	19:20 0.9	23:45 8.2
	S	24	7:43 0.0	12:10 7.6	19:58 0.6	. . .
○ E	S	25	0:22 8.6	8:20 —0.1	12:42 8.2	20:32 0.3
	M	26	0:55 8.8	8:50 —0.1	13:12 8.6	21:06 0.2
	Tu	27	1:27 8.8	9:19 0.2	13:45 8.8	21:38 0.4
	W	28	2:02 8.7	9:52 0.5	14:16 8.9	22:12 0.5
	Th	29	2:35 8.3	10:23 0.9	14:48 8.8	22:47 0.7
	F	30	3:10 7.8	10:59 1.2	15:25 8.4	23:29 1.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Shanghai Mean Local Civil, for the meridian 121° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	3:51 7.1	11:39 1.6	16:09 7.7	. . . . . .
N ☾	S	2	0:20 1.3	4:42 6.3	12:27 2.1	17:00 7.1
	M	3	1:19 1.5	5:43 5.6	13:29 2.5	18:06 6.8
	Tu	4	2:34 1.7	7:05 5.3	14:48 2.7	19:25 6.6
	W	5	3:54 1.6	8:29 5.7	16:12 2.5	20:43 7.1
	Th	6	5:05 1.2	9:39 6.4	17:22 2.0	21:50 7.8
	F	7	6:01 0.6	10:35 7.3	18:21 1.1	22:48 8.4
P E	S	8	6:50 0.1	11:20 8.0	19:10 0.3	23:37 9.1
●	S	9	7:33 —0.3	12:00 8.8	19:55 —0.2	. . . . . .
	M	10	0:22 9.3	8:17 —0.5	12:42 9.4	20:40 —0.6
	Tu	11	1:05 9.3	8:56 —0.5	13:21 9.7	21:17 —0.9
	W	12	1:46 9.0	9:34 —0.3	14:00 9.7	22:00 —0.8
	Th	13	2:27 8.5	10:11 0.1	14:38 9.5	22:44 —0.4
	F	14	3:10 7.8	10:50 0.6	15:20 8.9	23:30 0.0
S	S	15	3:55 6.9	11:34 1.2	16:05 8.2	. . . . . .
☽	S	16	0:22 0.7	4:48 6.2	12:25 1.8	17:00 7.4
	M	17	1:22 1.2	5:50 5.4	13:28 2.2	18:02 6.7
	Tu	18	2:34 1.6	7:10 5.0	14:27 2.8	19:20 6.2
	W	19	3:48 1.7	8:30 5.2	16:12 2.6	20:36 6.3
A	Th	20	4:57 1.5	9:33 6.0	17:20 2.1	21:41 6.7
	F	21	5:49 1.0	10:22 6.5	18:14 1.5	22:35 7.2
E	S	22	6:31 0.7	11:00 7.3	18:57 1.1	23:18 7.7
	S	23	7:12 0.5	11:40 7.9	19:35 0.7	23:55 8.1
○	M	24	7:45 0.4	12:12 8.6	20:10 0.3	. . . . . .
	Tu	25	0:28 8.3	8:17 0.4	12:43 9.0	20:40 0.2
	W	26	1:02 8.4	8:48 0.6	13:15 9.3	21:14 0.2
	Th	27	1:37 8.3	9:20 0.9	13:47 9.5	21:50 0.2
	F	28	2:14 8.0	9:54 1.1	14:22 9.3	22:30 0.4
N	S	29	2:52 7.6	10:31 1.3	15:00 8.9	23:14 0.6
	S	30	3:36 7.0	11:14 1.6	15:45 8.3	. . . . . .
	M	31	0:02 0.7	4:26 6.4	12:04 2.0	16:36 7.6

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
☾	Tu	1	1:00 1.0	5:28 5.9	13:07 2.3	17:39 7.1
	W	2	2:11 1.2	6:43 5.6	14:25 2.5	18:55 6.8
	Th	3	3:23 1.3	8:00 5.9	15:48 2.4	20:13 6.9
	F	4	4:32 1.2	9:08 6.5	17:00 1.9	21:25 7.3
E P	S	5	5:30 0.8	10:02 7.4	18:00 1.1	22:25 7.9
	S	6	6:22 0.4	10:51 8.4	18:50 0.4	23:16 8.3
●	M	7	7:09 0.2	11:36 9.1	19:35 —0.2	. . . . . .
	Tu	8	0:00 8.5	7:51 —0.1	12:16 9.6	20:20 —0.6
	W	9	0:45 8.5	8:28 0.0	12:55 9.9	21:05 —0.8
	Th	10	1:27 8.3	9:08 0.1	13:35 10.0	21:45 —0.8
S	F	11	2:08 7.9	9:46 0.4	14:15 9.8	22:29 —0.6
	S	12	2:50 7.3	10:25 0.9	14:55 9.2	23:11 —0.2
	S	13	3:34 6.8	11:07 1.3	15:40 8.5	. . . . . .
	M	14	0:00 0.3	4:25 6.2	11:55 2.0	16:27 7.7
☽	Tu	15	0:53 0.8	5:22 5.6	12:55 2.2	17:25 6.9
	W	16	1:54 1.3	6:29 5.3	14:07 2.6	18:32 6.2
A	Th	17	3:00 1.6	7:40 5.4	15:27 2.7	19:47 6.0
E	F	18	4:02 1.7	8:47 6.0	16:40 2.5	20:57 6.2
	S	19	4:59 1.5	9:40 6.7	17:37 2.0	21:53 6.6
	S	20	5:47 1.2	10:22 7.5	18:25 1.4	22:40 7.1
	M	21	6:30 1.0	11:02 8.2	19:05 0.9	23:24 7.4
	Tu	22	7:09 1.0	11:40 8.7	19:42 0.5	. . . . . .
○	W	23	0:02 7.8	7:46 0.9	12:15 9.3	20:20 0.2
	Th	24	0:40 7.9	8:20 0.9	12:50 9.7	20:52 0.0
	F	25	1:18 8.0	8:55 1.0	13:25 9.8	21:37 —0.2
N	S	26	1:57 7.8	9:32 1.1	14:02 9.7	22:17 —0.2
	S	27	2:38 7.5	10:12 1.2	14:48 9.0	23:00 —0.1
	M	28	3:24 7.1	10:56 1.5	15:28 8.8	23:50 0.2
	Tu	29	4:14 6.7	11:47 1.8	16:20 8.1	. . . . . .
☾	W	30	0:43 0.5	5:12 6.2	12:48 2.0	17:19 7.5

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	1:44 0.9	6:17 6.0	14:00 2.2	18:27 6.9
E	F	2	2:49 1.2	7:25 6.2	15:18 2.2	19:42 6.7
P	S	3	3:53 1.3	8:33 6.8	16:31 1.9	20:57 6.9
	S	4	4:54 1.2	9:33 7.5	17:35 1.3	22:00 7.2
	M	5	5:51 0.9	10:25 8.3	18:31 0.6	22:55 7.5
	Tu	6	6:41 0.6	11:14 9.0	19:22 0.0	23:44 7.6
●	W	7	7:25 0.6	11:57 9.6	20:09 —0.4	. . . . . .
S	Th	8	0:28 7.6	8:08 0.4	12:38 9.9	20:50 —0.8
	F	9	1:10 7.5	8:47 0.5	13:18 9.9	21:33 —0.8
	S	10	1:52 7.4	9:27 0.6	13:28 9.8	22:14 —0.7
	S	11	2:32 7.2	10:07 0.9	14:38 9.4	22:54 —0.4
	M	12	3:15 6.8	10:47 1.2	15:17 8.8	23:36 0.0
	Tu	13	4:00 6.5	11:30 1.5	16:00 8.1	. . . . . .
	W	14	0:20 0.5	4:50 6.1	12:24 2.0	16:50 7.3
☽ A	Th	15	1:10 1.0	5:42 5.9	13:22 2.4	17:45 6.5
E	F	16	2:02 1.4	6:42 5.8	14:32 2.7	18:50 5.9
	S	17	3:00 1.7	7:47 6.1	15:44 2.8	19:57 5.8
	S	18	4:00 1.9	8:47 6.5	16:50 2.5	21:02 6.0
	M	19	4:56 1.9	9:40 7.2	17:47 1.8	22:00 6.5
	Tu	20	5:50 1.6	10:28 8.0	18:36 1.2	22:52 6.9
	W	21	6:35 1.4	11:11 8.7	19:20 0.6	23:38 7.2
	Th	22	7:18 1.2	11:52 9.2	20:02 0.1	. . . . . .
○ N	F	23	0:20 7.5	7:57 1.0	12:30 9.7	20:43 —0.3
	S	24	1:02 7.6	8:38 1.0	13:08 10.0	21:23 —0.5
	S	25	1:42 7.7	9:16 1.0	13:40 9.9	22:05 —0.6
	M	26	2:26 7.6	10:00 1.0	14:30 9.8	22:47 —0.5
	Tu	27	3:10 7.3	10:44 1.0	15:15 9.3	23:33 —0.3
P	W	28	3:57 7.1	11:32 1.2	16:02 8.6	. . . . . .
E ☾	Th	29	0:21 0.1	4:48 9.8	12:30 1.4	16:57 7.8
	F	30	1:14 0.6	5:43 6.6	13:33 1.7	17:59 7.0
	S	31	2:10 0.9	6:47 6.5	14:44 2.1	19:09 6.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Shanghai Mean Local Civil, for the meridian 121° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:05	10:38	16:37	22:44	
			0.5	13.5	2.6	13.7	
N	S	2	4:57	11:25	17:29	23:32	
			—0.5	14.4	2.1	14.2	
○	S	3	5:48	12:14	18:17	. . .	
			—1.1	15.1	1.5	. . .	
P	M	4	0:20	6:34	13:00	19:02	
			14.7	—1.8	15.7	1.0	
	Tu	5	1:06	7:19	13:43	19:47	
			15.0	—2.0	16.0	0.7	
	W	6	1:50	8:05	14:27	20:32	
			15.1	—1.9	16.1	0.5	
	Th	7	2:37	8:52	15:12	21:19	
			15.0	—1.5	15.9	0.4	
E	F	8	3:25	9:40	15:57	22:09	
			14.7	—0.7	15.5	0.5	
	S	9	4:17	10:38	16:45	23:00	
			14.3	0.2	14.9	0.7	
☾	S	10	5:10	11:21	17:36	23:52	
			13.8	1.2	14.2	0.9	
	M	11	6:09	12:19	18:32	. . .	
			13.1	2.1	13.5	. . .	
	Tu	12	0:55	7:15	13:22	19:32	
			1.2	12.6	2.8	13.1	
	W	13	1:57	8:25	14:30	20:36	
			1.3	12.3	3.3	12.9	
	Th	14	3:00	9:32	15:37	21:37	
			1.2	12.5	3.5	13.0	
S	F	15	3:57	10:33	16:38	22:36	
			0.9	12.7	3.3	13.3	
	S	16	4:52	11:26	17:52	23:27	
			0.5	13.2	2.9	13.5	
●	S	17	5:39	12:11	6:17	. . .	
			0.2	13.6	2.5	. . .	
	M	18	0:14	6:22	12:50	18:50	
			13.7	—0.1	14.1	2.2	
	Tu	19	0:55	7:02	13:26	19:32	
			13.8	—0.2	14.4	2.0	
A	W	20	1:32	7:42	14:00	20:07	
			13.7	—0.2	14.6	1.7	
	Th	21	2:10	8:18	14:38	20:43	
			13.7	0.0	14.7	1.5	
	F	22	2:45	8:57	15:13	21:22	
			13.5	0.4	14.6	1.4	
E	S	23	3:25	9:35	15:50	22:00	
			13.3	0.8	14.3	1.3	
	S	24	4:07	10:22	16:30	22:44	
			13.2	1.4	13.9	1.3	
	M	25	4:52	11:07	17:15	23:33	
			13.0	2.0	13.4	1.4	
☽	Tu	26	5:43	12:00	18:06	. . .	
			12.7	2.6	12.9	. . .	
	W	27	0:28	6:45	12:56	19:04	
			1.6	12.3	3.2	12.5	
	Th	28	1:30	7:52	14:00	20:09	
			1.6	12.3	3.5	12.4	
	F	29	2:33	9:01	15:05	21:15	
			1.3	12.5	3.5	12.7	
N	S	30	3:35	10:07	16:10	22:17	
			0.8	13.1	3.0	13.3	
	S	31	4:33	11:04	17:08	23:11	
			0.0	13.8	2.3	14.0	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	M	1	5:27	11:54	18:00	. . .	
			—0.8	14.7	1.5	. . .	
○	Tu	2	0:03	6:17	12:41	18:46	
P			14.8	—1.5	15.5	0.7	
	W	3	0:51	7:08	13:25	19:32	
			15.3	—1.8	16.0	0.1	
	Th	4	1:40	7:50	14:07	20:15	
			15.7	—1.8	16.2	—0.3	
E	F	5	2:24	8:36	14:50	21:00	
			15.7	—1.5	16.2	—0.5	
	S	6	3:10	9:20	15:33	21:46	
			15.5	—0.8	15.8	—0.4	
	S	7	3:57	10:07	16:17	22:32	
			15.1	—0.1	15.0	—0.1	
☾	M	8	4:45	10:55	17:07	23:22	
			14.3	1.0	14.3	0.4	
	Tu	9	5:40	11:47	18:00	. . .	
			13.5	2.1	13.5	. . .	
	W	10	0:18	6:40	12:45	18:57	
			1.0	12.6	3.1	12.7	
	Th	11	1:21	7:48	13:53	20:00	
			1.5	12.0	3.8	12.3	
S	F	12	2:25	9:00	15:06	21:07	
			1.8	11.9	4.0	12.3	
	S	13	3:30	10:05	16:12	22:10	
			1.7	12.1	3.7	12.5	
	S	14	4:26	11:00	17:09	23:07	
			1.4	12.6	2.8	13.0	
	M	15	5:18	11:46	17:56	23:55	
			1.0	13.2	2.6	13.4	
A	Tu	16	6:04	12:27	18:35	. . .	
●			0.5	13.8	2.0	. . .	
	W	17	0:37	6:46	13:08	19:10	
			13.7	0.3	14.3	1.5	
	Th	18	1:15	7:22	13:37	19:44	
			14.0	0.1	14.6	1.1	
E	F	19	1:50	7:59	14:11	20:18	
			14.1	0.2	14.8	0.8	
	S	20	2:25	8:32	14:47	20:55	
			14.2	0.3	14.7	0.5	
	S	21	3:04	9:08	15:21	21:33	
			14.8	0.6	14.5	0.5	
	M	22	3:42	9:45	16:00	22:15	
			14.1	1.0	14.0	0.7	
	Tu	23	4:23	10:30	16:42	23:00	
			13.8	1.6	13.6	0.9	
☽	W	24	5:13	11:18	17:30	23:52	
			13.4	2.3	12.5	1.2	
	Th	25	6:12	12:15	18:27	. . .	
			12.9	3.0	12.5	. . .	
N	F	26	0:54	7:17	13:21	19:33	
			1.5	12.5	3.6	12.2	
	S	27	2:00	8:29	14:35	20:45	
			1.5	12.5	3.6	12.4	
	S	28	3:07	9:38	15:47	21:54	
			1.2	12.9	3.1	13.1	
	M	29	4:11	10:40	16:48	22:54	
			0.5	13.6	2.2	14.0	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	5:07	11:32	17:40	23:48	
			—0.2	14.5	1.1	14.9	
○	W	2	5:59	12:20	18:28	. . .	
			—0.9	15.3	0.2	. . .	
E	Th	3	0:37	6:47	13:04	19:10	
			15.6	—1.3	16.0	—0.7	
	F	4	1:23	7:32	13:47	19:54	
			16.1	—1.4	16.3	—1.2	
	S	5	2:07	8:16	14:28	20:38	
			16.2	—1.2	16.2	—1.2	
	S	6	2:50	9:00	15:09	21:20	
			16.1	—0.7	15.7	—1.0	
	M	7	3:33	9:42	15:51	22:05	
			15.4	0.2	15.0	—0.5	
	Tu	8	4:19	10:27	16:36	22:50	
			14.6	1.2	14.1	—0.3	
☾	W	9	5:10	11:15	17:25	23:44	
			13.7	2.8	13.2	1.0	
S	Th	10	6:07	12:12	18:28	. . .	
			12.7	3.2	12.4	. . .	
	F	11	0:45	7:10	13:21	19:27	
			1.8	12.0	3.9	11.8	
	S	12	1:49	8:22	14:33	20:39	
			2.3	11.6	4.1	11.7	
	S	13	2:56	9:29	15:44	21:46	
			2.5	11.8	3.8	11.0	
A	M	14	3:57	10:28	16:40	22:45	
			2.3	12.4	3.1	12.5	
	Tu	15	4:52	11:15	17:27	23:34	
			1.8	13.0	2.3	13.2	
	W	16	5:42	11:57	18:07	. . .	
			1.2	13.7	1.6	. . .	
●	Th	17	0:16	6:22	12:36	18:43	
E			13.8	0.8	14.2	0.9	
	F	18	0:55	7:00	13:12	19:18	
			14.2	0.5	14.5	0.5	
	S	19	1:28	7:34	13:45	19:52	
			14.5	0.4	14.7	0.2	
	S	20	2:05	8:10	14:18	20:27	
			14.9	0.3	14.7	—0.1	
	M	21	2:39	8:44	14:52	21:04	
			15.0	0.5	14.5	—0.2	
	Tu	22	3:17	9:22	15:30	21:44	
			14.9	0.9	14.1	0.0	
	W	23	4:00	10:03	16:10	22:31	
			14.5	1.5	14.6	0.4	
	Th	24	4:50	10:52	16:58	23:24	
			14.0	2.2	12.9	0.9	
N	F	25	5:42	11:50	17:58	. . .	
☽			13.4	2.9	12.4	. . .	
	S	26	0:23	6:50	12:58	19:07	
			1.3	12.8	3.4	12.1	
	S	27	1:30	8:00	14:12	20:22	
			1.6	12.6	3.4	12.3	
	M	28	2:40	9:10	15:22	21:32	
			1.6	12.9	2.8	13.0	
	Tu	29	3:47	10:12	16:24	22:35	
P			1.2	13.6	1.7	13.9	
	W	30	4:46	11:06	17:17	23:29	
E			0.5	14.5	0.6	14.8	
☾	Th	31	5:40	11:53	18:05	. . .	
			—0.1	15.1	—0.2	. . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 7.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Amoy Mean Local Civil, for the meridian 118° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:17	6:29	12:41	18:48	
			15.6	—0.6	15.7	—1.1	
	S	2	1:02	7:13	13:22	19:31	
			16.2	—0.7	15.9	—1.5	
	S	3	1:46	7:54	14:02	20:12	
			16.3	—0.5	15.8	—1.6	
	M	4	2:28	8:35	14:42	20:53	
			16.1	0.0	15.3	—1.3	
	Tu	5	3:12	9:17	15:23	21:37	
			15.5	0.7	14.7	—0.6	
S	W	6	3:55	10:00	16:06	22:22	
			14.7	1.5	13.8	0.2	
	Th	7	4:43	10:47	16:55	23:12	
			13.8	2.4	12.8	1.2	
☾	F	8	5:35	11:42	17:52	. . .	
			12.9	3.2	12.0	. . .	
	S	9	0:08	6:35	12:47	18:57	
			2.1	12.2	3.8	11.4	
	S	10	1:12	7:40	13:55	20:07	
			2.8	11.9	4.0	11.3	
A	M	11	2:17	8:47	15:08	21:14	
			3.0	11.9	3.6	11.5	
	Tu	12	3:23	9:44	16:00	22:12	
			2.9	12.3	3.0	12.1	
	W	13	4:20	10:35	16:47	23:00	
			2.4	12.8	2.2	12.9	
E	Th	14	5:10	11:22	17:33	23:45	
			1.9	13.5	1.3	13.7	
	F	15	5:52	12:05	18:12	. . .	
			1.4	14.1	0.5	. . .	
●	S	16	0:25	6:32	12:40	18:49	
			14.5	0.8	14.5	—0.1	
	S	17	1:02	7:07	13:15	19:25	
			15.0	0.7	14.6	—0.6	
	M	18	1:40	7:44	13:50	20:02	
			15.3	0.7	14.6	—0.8	
	Tu	19	2:18	8:22	14:25	20:41	
			15.5	0.8	14.4	—0.8	
	W	20	2:58	9:02	15:02	21:22	
			15.3	1.1	14.1	—0.5	
N	Th	21	3:43	9:45	15:47	22:10	
			15.0	1.6	13.5	0.0	
	F	22	4:32	10:35	16:37	23:02	
			14.4	2.1	13.0	0.6	
☽	S	23	5:27	11:32	17:39	. . .	
			13.8	2.6	12.4	. . .	
	S	24	0:00	6:26	12:35	18:48	
			1.3	13.3	2.9	12.2	
	M	25	1:07	7:32	13:46	19:59	
			1.8	13.0	2.8	12.4	
	Tu	26	2:14	8:38	14:52	21:07	
			1.9	13.1	2.2	12.9	
P E	W	27	3:20	9:40	15:53	22:12	
			1.8	13.5	1.5	13.7	
	Th	28	4:24	10:36	16:47	23:07	
			1.3	14.1	0.4	14.7	
	F	29	5:19	11:28	17:37	23:57	
			0.6	14.9	—0.6	14.4	
○	S	30	6:06	12:14	18:22	. . .	
			0.4	15.3	—1.3	. . .	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	0:48	6:51	12:56	19:04	
			15.8	0.3	15.4	—1.7	
	M	2	1:26	7:32	13:36	19:47	
			15.9	0.5	15.2	—1.6	
	Tu	3	2:08	8:12	14:16	20:27	
			15.7	0.8	14.8	—1.2	
S	W	4	2:50	8:54	14:56	21:12	
			15.3	1.3	14.2	—0.5	
	Th	5	3:33	9:37	15:40	21:56	
			14.7	1.9	13.4	0.3	
	F	6	4:17	10:24	16:27	22:45	
			14.0	2.5	12.5	1.2	
☾	S	7	5:07	11:16	17:22	23:37	
			13.3	3.1	11.8	2.1	
	S	8	6:00	12:13	18:23	. . .	
			12.7	3.4	11.3	. . .	
A	M	9	0:35	7:00	13:14	19:27	
			2.8	12.3	3.5	11.2	
	Tu	10	1:38	8:00	14:16	20:32	
			3.2	12.1	3.3	11.5	
E	W	11	2:42	8:58	15:15	21:34	
			3.2	12.3	2.6	12.5	
	Th	12	3:40	9:52	16:07	22:28	
			2.9	12.8	1.9	12.9	
	F	13	4:32	10:42	16:52	23:14	
			2.3	13.4	1.0	13.6	
	S	14	5:19	11:25	17:37	23:56	
			1.9	13.9	0.2	14.3	
●	S	15	6:00	12:07	18:17	. . .	
			1.5	14.2	—0.5	. . .	
	M	16	0:37	6:41	12:44	18:57	
			15.0	1.3	14.4	—1.1	
	Tu	17	1:20	7:21	13:22	19:37	
			15.4	1.2	14.5	—1.3	
N	W	18	2:00	8:00	14:02	20:18	
			15.6	1.1	14.3	—1.3	
	Th	19	2:42	8:44	14:46	21:04	
			16.6	1.1	14.1	—1.0	
	F	20	3:27	9:30	15:30	21:50	
			15.3	1.5	13.7	—0.4	
	S	21	4:15	10:22	16:22	22:43	
			14.8	1.8	13.2	0.3	
☽	S	22	5:08	11:17	17:24	23:41	
			14.3	2.1	12.8	1.1	
P	M	23	6:04	12:17	18:27	. . .	
			13.8	2.2	13.5	. . .	
E	Tu	24	0:44	7:05	13:20	19:36	
			1.8	13.4	2.1	12.7	
	W	25	1:48	8:06	14:24	20:46	
			2.2	13.2	1.6	13.0	
	Th	26	2:57	9:10	15:25	21:49	
			2.1	13.5	1.0	13.6	
	F	27	3:59	10:06	16:20	22:45	
			1.9	14.0	0.1	14.2	
	S	28	4:55	11:00	17:10	23:37	
			1.7	14.5	—0.6	14.7	
○	S	29	5:45	11:46	17:59	. . .	
			1.4	14.7	—1.1	. . .	
	M	30	0:25	6:29	12:32	18:42	
			15.0	1.4	14.8	—1.3	
S	Tu	31	1:10	7:11	18:12	19:24	
			15.2	1.4	14.6	—1.3	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	1:50	7:52	13:58	20:07	
			15.1	1.5	14.3	—0.9	
	Th	2	2:30	8:33	14:35	20:49	
			14.9	1.8	13.8	—0.4	
	F	3	3:11	9:17	15:16	21:32	
			14.6	2.1	13.2	0.3	
	S	4	3:54	10:00	16:02	22:16	
			14.2	2.4	12.5	1.2	
A	S	5	4:39	10:48	16:54	23:05	
			13.7	2.7	12.0	1.9	
☾	M	6	5:27	11:39	17:48	23:56	
			13.2	2.8	11.7	2.7	
E	Tu	7	6:17	12:34	18:44	. . .	
			12.7	2.9	11.5	. . .	
	W	8	0:54	7:11	13:33	19:47	
			3.2	12.5	2.7	11.6	
	Th	9	1:54	8:09	14:30	20:50	
			3.4	12.5	2.2	11.9	
	F	10	2:55	9:06	15:24	21:48	
			3.2	12.7	1.6	12.6	
	S	11	3:51	10:00	16:15	22:40	
			2.9	13.1	0.8	13.3	
	S	12	4:44	10:50	17:03	23:29	
			2.5	13.5	0.0	14.1	
	M	13	5:33	11:35	17:48	. . .	
			2.2	13.9	—0.7	. . .	
● N	Tu	14	0:15	6:17	12:20	18:31	
			14.8	1.8	14.2	—1.3	
	W	15	0:58	7:00	13:02	19:17	
			15.3	1.5	14.5	—1.6	
	Th	16	1:41	7:43	13:45	20:00	
			15.7	1.3	14.5	—1.6	
P	F	17	2:26	8:28	14:32	20:48	
			15.7	1.1	14.4	—1.8	
	S	18	3:10	9:16	15:18	21:35	
			15.6	1.1	14.2	—0.7	
	S	19	3:58	10:05	16:10	22:26	
			15.3	1.2	13.8	0.0	
☽	M	20	4:47	10:58	17:08	23:20	
			14.8	1.3	13.4	1.9	
E	Tu	21	5:40	11:54	18:06	. . .	
			14.2	1.3	13.2	. . .	
	W	22	0:18	6:35	12:54	19:10	
			1.6	13.7	1.3	12.9	
	Th	23	1:22	7:35	13:56	20:18	
			2.2	13.5	1.2	12.9	
	F	24	2:27	8:36	14:57	21:25	
			2.6	13.4	0.8	13.0	
	S	25	3:32	9:35	15:55	22:26	
			2.7	13.6	0.3	13.4	
	S	26	4:30	10:31	16:48	23:20	
			2.7	13.9	—0.1	13.8	
S	M	27	5:24	11:21	17:37	. . .	
			2.4	14.1	—0.5	. . .	
○	Tu	28	0:07	6:12	12:11	18:23	
			14.2	2.2	14.2	—0.7	
	W	29	0:51	6:55	12:55	19:05	
			14.5	2.0	14.2	—0.7	
	Th	30	1:30	7:35	13:35	19:47	
			14.6	1.9	14.0	—0.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 7.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Amoy Mean Local Civil, for the meridian 118° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:10 14.7	8:15 1.9	14:16 13.6	20:27 —0.1
	S	2	2:48 14.5	8:55 1.9	14:55 13.3	21:07 0.4
A	S	3	3:27 14.4	9:36 2.0	15:37 12.9	21:50 1.0
	M	4	4:06 14.1	10:18 2.0	16:22 12.5	22:32 1.7
E	Tu	5	4:50 13.6	11:03 2.1	17:12 12.3	23:18 2.3
☾	W	6	5:37 13.2	11:54 2.1	18:02 12.0	. . . . . .
	Th	7	0:09 2.9	6:27 12.8	12:48 2.1	19:02 11.9
	F	8	1:08 3.3	7:23 12.5	13:46 2.0	20:05 12.0
	S	9	2:11 3.5	8:22 12.5	14:43 1.5	21:08 12.4
	S	10	3:12 3.4	9:22 12.8	15:40 0.9	22:07 13.0
	M	11	4:10 3.1	10:16 13.3	16:33 0.2	23:02 13.8
N	Tu	12	5:05 2.5	11:09 13.8	17:23 —0.6	23:51 14.5
●	W	13	5:54 2.0	11:58 14.3	18:12 —1.3	. . . . . .
	Th	14	0:38 15.2	6:42 1.4	12:44 14.7	18:58 —1.7
P	F	15	1:23 15.7	7:27 0.9	13:30 15.0	19:44 —1.8
	S	16	2:07 15.9	8:12 0.6	14:17 15.0	20:32 —1.5
	S	17	2:50 15.9	8:58 0.3	15:04 14.9	21:17 —0.9
E	M	18	3:36 15.7	9:45 0.3	15:54 14.6	22:07 —0.1
	Tu	19	4:22 15.2	10:35 0.4	16:45 14.2	22:57 0.8
☽	W	20	5:10 14.5	11:27 0.5	17:40 13.6	23:52 1.6
	Th	21	6:05 13.9	12:24 0.8	18:43 13.0	. . . . . .
	F	22	0:51 2.5	7:04 13.4	13:27 1.0	19:50 12.6
	S	23	1:55 3.1	8:05 13.0	14:27 1.1	20:59 12.5
	S	24	3:08 3.4	9:07 13.0	15:29 0.9	22:04 12.6
S	M	25	4:08 3.3	10:07 13.2	16:25 0.6	23:00 13.0
	Tu	26	5:04 3.0	11:02 13.5	17:17 0.3	23:49 13.5
○	W	27	5:54 2.5	11:52 13.8	18:02 0.0	. . . . . .
	Th	28	0:32 14.0	6:37 2.2	12:37 13.9	18:46 —0.2
	F	29	1:10 14.3	7:16 1.8	13:18 13.9	19:27 —0.1
	S	30	1:47 14.5	7:52 1.6	13:57 13.8	20:07 0.1
A	S	31	2:23 14.7	8:30 1.4	14:35 13.7	20:44 0.4

AUGUST.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
E	M	1	2:58 14.6	9:07 1.3	15:12 13.5	21:22 0.9
	Tu	2	3:35 14.3	9:46 1.3	15:54 13.3	21:59 1.4
	W	3	4:14 13.8	10:27 1.3	16:34 13.0	22:43 2.0
☾	Th	4	4:57 13.4	11:14 1.4	17:23 12.7	23:30 2.5
	F	5	5:45 13.0	12:05 1.7	18:21 12.4	. . . . . .
	S	6	0:28 3.2	6:40 12.5	13:03 1.8	19:25 12.2
	S	7	1:28 3.6	7:40 12.3	14:06 1.6	20:32 12.3
N	M	8	2:35 3.7	8:46 12.4	15:08 1.2	21:37 12.7
	Tu	9	3:42 3.7	9:49 12.9	16:07 0.5	22:37 13.5
	W	10	4:42 2.7	10:47 13.7	17:02 —0.3	23:30 14.3
●	Th	11	5:35 1.8	11:40 14.5	17:54 —1.0	. . . . . .
P	F	12	0:17 15.1	6:22 1.0	12:30 15.1	18:40 —1.5
	S	13	1:02 15.7	7:09 0.2	13:16 15.6	19:28 —1.6
E	S	14	1:45 16.1	7:53 —0.3	14:02 15.7	20:14 —1.5
	M	15	2:28 16.2	8:37 —0.7	14:48 16.7	21:00 —1.0
	Tu	16	3:11 15.9	9:22 —0.7	15:35 15.4	21:42 —0.4
	W	17	3:57 15.3	10:09 —0.4	16:22 14.8	22:30 0.6
☽	Th	18	4:42 14.5	10:57 0.1	17:14 14.0	23:22 1.7
	F	19	5:34 13.8	11:52 0.7	18:13 13.1	. . . . . .
	S	20	0:19 2.7	6:31 13.0	12:53 1.2	19:18 12.4
S	S	21	1:25 3.5	7:33 12.5	13.57 1.6	20:30 12.0
	M	22	2:37 3.8	8:40 12.4	15:08 1.7	21:37 12.1
	Tu	23	3:45 3.6	9:46 12.6	16:02 1.5	22:37 12.6
	W	24	4:45 2.9	10:45 13.0	16:56 1.1	23:25 13.2
	Th	25	5:34 2.5	11:36 13.5	17:44 0.7	. . . . . .
○	F	26	0:08 13.8	6:15 1.9	12:20 13.8	18:30 0.4
A	S	27	0:46 14.2	6:53 1.4	13:00 14.0	19:08 0.3
E	S	28	1:20 14.6	7:28 1.0	13:36 14.2	19:43 0.3
	M	29	1:56 14.7	8:03 0.7	14:12 14.2	20:17 0.5
	Tu	30	2:30 14.5	8:38 0.5	14:49 14.3	20:54 0.6
	W	31	3:07 14.4	9:15 0.5	15:25 14.1	21:31 1.1

SEPTEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	3:41 14.0	9:55 0.7	16:04 13.8	22:10 1.7
	F	2	4:21 13.5	10:40 1.0	16:52 13.4	22:57 2.3
☾	S	3	5:08 12.9	11:28 1.3	17:47 12.9	23:50 3.1
	S	4	6:02 12.4	12:27 1.6	18:51 12.5	. . . . . .
N	M	5	0:54 3.6	7:07 12.0	13:32 1.8	20:00 12.4
	Tu	6	2:06 3.7	8:17 12.1	14:37 1.5	21:09 12.7
	W	7	3:17 3.2	9:27 12.8	15:42 1.0	22:10 13.4
	Th	8	4:20 2.4	10:28 13.7	16:40 0.3	23:05 14.2
	F	9	5:13 1.3	11:23 14.6	17:38 —0.5	23:54 15.1
P ●	S	10	6:02 0.3	12:12 15.5	18:23 —1.0	. . . . . .
E	S	11	0:38 15.8	6:46 —0.7	12:58 16.1	19:10 —1.3
	M	12	1:22 16.2	7:30 —1.2	13:42 16.3	19:54 —1.3
	Tu	13	2:04 16.2	8:13 —1.3	14:26 16.3	20:37 —0.8
	W	14	2:45 15.8	8:56 —1.3	15:10 15.8	21:20 0.0
	Th	15	3:28 15.2	9:42 —0.8	15:51 15.1	22:04 0.9
☽	F	16	4:13 14.4	10:29 —0.1	16:47 14.1	22:54 2.0
S	S	17	5:03 13.5	11:22 1.8	17:44 13.2	23:51 2.9
	S	18	6:00 12.6	12:20 1.6	18:47 12.3	. . . . . .
	M	19	0:56 3.7	7:05 12.0	13:25 2.2	19:56 11.9
	Tu	20	2:09 3.9	8:16 11.8	14:32 2.4	21:04 12.0
	W	21	3:20 3.6	9:25 12.0	15:37 2.3	22:05 12.4
	Th	22	4:20 3.0	10:25 12.6	16:34 2.9	22:55 13.0
A	F	23	5:08 2.3	11:17 13.2	17:25 1.4	23:38 13.6
	S	24	5:48 1.5	12:00 13.7	18:07 1.0	. . . . . .
E ○	S	25	0:19 14.0	6:26 1.1	12:38 14.2	18:43 0.8
	M	26	0:55 14.4	7:00 0.5	13:13 14.5	19:17 0.5
	Tu	27	1:27 14.6	7:34 0.1	13:47 14.9	19:52 0.5
	W	28	2:00 14.5	8:08 —0.1	14:22 14.9	20:26 0.8
	Th	29	2:32 14.3	8:45 —0.1	14:58 14.8	21:03 1.1
	F	30	3:07 13.9	9:25 0.1	15:40 14.5	21:44 1.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 7.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Amoy Mean Local Civil, for the meridian 118° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

● , new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.: E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	1:35 0.1	7:57 2.9	12:42 1.5	19:16 5.7
N	S	2	2:23 —0.5	8:55 3.0	13:35 1.6	20:00 6.1
○	S	3	3:12 —0.1	9:45 3.2	14:23 1.5	20:42 6.3
P	M	4	3:57 —1.2	10:34 3.3	15:07 1.6	21:25 6.3
	Tu	5	4:42 —1.3	11:22 3.3	16:00 1.6	22:07 6.1
	W	6	5:27 —1.3	12:08 3.4	16:46 1.8	22:51 5.8
	Th	7	6:10 —0.9	12:55 3.5	17:40 2.0	23:38 5.2
E	F	8	6:54 —0.4	13:38 3.6	18:38 2.1	. . . . . .
	S	9	0:26 4.5	7:35 0.2	14:26 3.7	19:50 2.1
☾	S	10	1:18 3.8	8:17 0.7	15:18 4.0	21:06 2.1
	M	11	2:32 3.0	9:06 1.2	16:13 4.2	22:35 1.8
	Tu	12	4:27 2.6	9:58 1.6	17:08 4.4	. . . . . .
	W	13	0:00 1.4	6:15 2.6	10:45 1.8	17:54 4.7
	Th	14	1:10 1.0	7:33 2.6	11:38 2.0	18:37 5.0
S	F	15	1:57 0.6	8:32 2.7	12:22 2.0	19:15 5.3
	S	16	2:34 0.1	9:14 2.7	13:10 2.0	19:51 5.5
●	S	17	3:08 —0.2	9:49 2.7	13:52 2.0	20:24 5.6
	M	18	3:40 —0.4	10:20 2.7	14:36 2.0	20:58 5.6
	Tu	19	4:13 —0.5	10:50 2.8	15:17 2.0	21:28 5.5
A	W	20	4:44 —0.5	11:22 3.0	15:58 1.9	22:00 5.4
	Th	21	5:17 —0.4	11:47 3.4	16:40 1.9	22:35 5.0
	F	22	5:50 —0.2	12:14 3.5	17:26 2.0	23:10 4.7
E	S	23	6:22 0.1	12:47 3.7	18:18 2.1	23:50 4.2
	S	24	6:55 0.4	13:25 3.9	19:19 2.0	. . . . . .
	M	25	0:37 3.7	7:30 0.7	14:10 4.2	20:29 2.0
☽	Tu	26	1:31 3.2	8:20 1.1	15:02 4.3	21:48 1.7
	W	27	2:48 2.7	9:10 1.4	15:57 4.6	23:05 1.3
	Th	28	4:57 2.6	10:10 1.6	17:00 4.9	. . . . . .
	F	29	0:16 0.7	6:35 2.6	11:14 1.7	17:58 5.3
N	S	30	1:15 0.0	7:49 2.7	12:18 1.9	18:53 5.7
	S	31	2:06 —0.5	8:44 2.9	13:16 1.7	19:44 6.0

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	M	1	2:58 —1.0	9:30 3.2	14:10 1.5	20:32 6.2
○ P	Tu	2	3:38 —1.2	10:11 3.5	15:02 1.4	21:20 6.2
	W	3	4:22 —1.1	10:58 3.6	15:50 1.3	22:05 6.1
	Th	4	5:00 —0.9	11:32 3.9	16:41 1.3	22:50 5.6
E	F	5	5:41 —0.6	12:09 4.0	17:33 1.4	23:37 5.0
	S	6	6:20 —0.1	12:48 4.1	18:29 1.4	. . . . . .
	S	7	0:21 4.3	6:58 0.6	13:31 4.2	19:34 1.5
☾	M	8	1:10 3.5	7:42 1.1	14:22 4.2	20:45 1.6
	Tu	9	2:26 2.8	8:23 1.6	15:17 4.2	22:10 1.6
	W	10	4:24 2.6	9:07 2.0	16:19 4.3	23:43 1.3
	Th	11	6:27 2.6	10:00 2.2	17:20 4.5	. . . . . .
S	F	12	0:57 1.0	7:52 2.7	11:04 2.3	18:13 4.7
	S	13	1:44 0.7	8:37 2.7	12:04 2.2	18:57 4.9
	S	14	2:17 0.3	9:07 2.7	12:55 2.2	19:36 5.1
	M	15	2:47 0.1	9:30 2.8	13:42 2.0	20:11 5.2
A ●	Tu	16	3:13 —0.1	9:52 3.1	14:28 1.9	20:42 5.3
	W	17	3:42 —0.2	10:16 3.4	15:07 1.7	21:16 5.3
	Th	18	4:11 —0.2	10:35 3.6	15:47 1.6	21:47 5.1
E	F	19	4:41 —0.1	10:56 3.9	16:28 1.4	22:20 4.8
	S	20	5:11 0.1	11:22 4.1	17:12 1.3	22:57 4.5
	S	21	5:41 0.4	11:52 4.3	18:00 1.3	23:37 4.1
	M	22	6:13 0.8	12:26 4.4	18:52 1.3	. . . . . .
	Tu	23	0:20 3.6	6:52 1.1	13:07 4.5	19:52 1.3
☽	W	24	1:10 3.0	7:30 1.4	13:53 4.6	21:06 1.3
	Th	25	2:23 2.6	8:18 1.8	14:55 4.7	22:28 1.0
N	F	26	4:37 2.6	9:25 2.1	16:12 4.8	23:45 0.5
	S	27	6:32 2.6	10:50 2.1	17:25 5.1	. . . . . .
	S	28	0:50 0.0	7:36 2.7	12:02 1.9	18:32 5.5
	M	29	1:42 —0.4	8:21 3.2	13:07 1.5	19:31 6.8

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	2:30 —0.6	9:01 3.6	14:02 0.6	20:22 5.9
○	W	2	3:10 —0.7	9:38 3.7	14:53 0.9	21:11 5.9
E	Th	3	3:52 —0.6	10:13 4.3	15:52 0.7	21:57 5.6
	F	4	4:30 —0.4	10:47 4.5	16:32 0.6	22:42 5.2
	S	5	5:08 0.0	11:22 4.6	17:22 0.6	23:29 4.6
	S	6	5:47 0.6	12:00 4.6	18:14 0.6	. . . . . .
	M	7	0:17 4.0	6:24 1.0	12:39 4.5	19:11 0.9
	Tu	8	1:08 3.2	7:00 1.5	13:20 4.4	20:14 1.1
☾	W	9	2:27 2.6	7:37 1.9	14:08 4.3	21:30 1.2
S	Th	10	4:28 2.6	8:22 2.1	15:11 4.2	23:00 1.2
	F	11	6:40 2.6	9:30 2.3	16:31 4.2	. . . . . .
	S	12	0:12 1.0	7:40 2.7	10:47 2.3	17:40 4.2
	S	13	1:02 0.8	8:15 2.7	11:51 2.4	18:35 4.3
A	M	14	1:38 0.6	8:36 2.9	12:52 2.3	19:18 4.6
	Tu	15	2:08 0.4	8:54 3.3	13:40 2.0	19:58 4.6
	W	16	2:37 0.3	9:12 3.6	14:21 1.6	20:32 4.8
● E	Th	17	3:06 0.2	9:27 4.0	15:00 1.3	21:05 4.8
	F	18	3:35 0.2	9:48 4.2	15:38 1.0	21:37 4.6
	S	19	4:05 0.4	10:10 4.5	16:17 0.8	22:15 4.5
	S	20	4:37 0.7	10:37 4.4	17:00 0.6	22:51 4.2
	M	21	5:07 1.0	11:07 4.7	17:40 0.6	23:30 3.8
	Tu	22	5:36 1.3	11:41 4.8	18:29 0.6	. . . . . .
	W	23	0:14 3.3	6:10 1.6	12:15 4.9	19:30 0.6
N	Th	24	1:07 2.6	6:46 2.0	13:03 4.8	20:40 0.7
☽	F	25	2:30 2.6	7:37 2.2	14:04 4.7	22:00 0.6
	S	26	5:00 2.6	9:02 2.2	15:28 4.6	23:12 0.4
	S	27	6:25 2.7	10:35 2.2	16:57 4.7	. . . . . .
	M	28	0:17 0.2	7:12 3.0	11:55 2.0	18:15 4.9
	Tu	29	1:10 0.0	7:50 3.6	13:00 1.4	19:17 5.1
P	W	30	1:55 —0.1	8:25 4.2	13:53 0.9	20:12 5.2
E ○	Th	31	2:39 —0.1	8:57 4.6	14:44 0.4	21:02 5.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hongkong Mean Local Civil, for the meridian 114° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	3:18	9:30	15:33	21:50
			0.0	4.9	0.1	5.1
	S	2	3:55	10:04	16:20	22:35
			0.3	5.0	—0.1	4.6
	S	3	4:32	10:38	17:05	23:22
			0.7	5.1	—0.1	4.1
	M	4	5:07	11:14	17:54	. . .
			1.1	5.1	0.0	. . .
	Tu	5	0:10	5:42	11:48	18:47
			3.5	1.6	5.0	0.3
S	W	6	1:08	6:17	12:26	19:45
			3.0	2.0	4.8	0.6
	Th	7	2:26	6:53	13:07	20:49
			2.7	2.3	4.5	0.8
☾	F	8	4:22	7:46	13:59	22:00
			2.6	2.3	4.1	0.9
	S	9	6:07	9:07	15:16	23:06
			2.7	2.4	3.8	1.0
	S	10	7:00	10:31	16:50	. . .
			2.8	2.6	3.7	. . .
A	M	11	0:00	7:28	11:50	17:59
			0.9	3.2	2.6	3.8
	Tu	12	0:41	7:47	12:45	18:52
			0.8	3.6	2.2	3.9
	W	13	1:20	8:04	13:30	19:35
			0.8	3.9	1.7	4.0
E	Th	14	1:55	8:22	14:11	20:16
			0.8	4.2	1.4	4.1
	F	15	2:27	8:43	14:50	20:52
			0.8	4.5	0.7	4.2
●	S	16	2:58	9:07	15:28	21:32
			0.8	4.7	0.4	4.1
	S	17	3:29	9:31	16:05	22:10
			0.9	5.0	0.1	3.9
	M	18	4:00	9:57	16:47	22:51
			1.1	5.2	—0.1	3.6
	Tu	19	4:30	10:30	17:33	23:35
			1.4	5.3	—0.1	3.2
	W	20	5:00	11:04	18:21	. . .
			1.7	5.3	—0.1	. . .
N	Th	21	0:25	5:36	11:42	19:18
			2.8	2.6	5.2	0.1
	F	22	1:30	6:17	12:29	20:20
			2.7	2.1	5.0	0.2
☽	S	23	3:10	7:20	13:26	21:30
			2.7	2.3	4.7	0.4
	S	24	4:57	8:55	14:50	22:37
			2.7	2.5	4.4	0.4
	M	25	5:54	10:30	16:27	23:37
			3.0	2.5	4.2	0.5
	Tu	26	6:35	11:47	17:57	. . .
			3.6	1.9	4.2	. . .
P E	W	27	0:30	7:10	12:50	19:04
			0.5	4.1	1.2	4.3
	Th	28	1:20	7:43	13:46	20:00
			0.6	4.6	0.6	4.4
	F	29	2:00	8:20	14:35	20:52
			0.7	5.0	0.0	4.4
○	S	30	2:39	8:51	15:20	21:42
			0.8	5.3	—0.4	4.2

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	3:15	9:25	16:06	22:30
			1.0	5.6	—0.6	3.9
	M	2	3:50	10:00	16:52	23:18
			1.2	5.6	—0.6	3.5
	Tu	3	4:25	10:34	17:37	. . .
			1.5	5.6	—0.4	. . .
S	W	4	0:10	5:00	11:07	18:27
			3.2	1.7	5.4	—0.2
	Th	5	1:08	5:37	11:42	19:16
			3.0	2.1	5.1	0.1
	F	6	2:25	6:17	12:17	20:10
			3.0	2.3	4.6	0.4
☾	S	7	3:47	7:17	12:59	21:04
			2.8	2.5	4.1	0.6
A	S	8	5:07	8:35	13:55	22:00
			3.0	2.6	3.7	0.8
	M	9	5:54	10:07	15:24	22:52
			3.3	2.6	3.3	1.0
	Tu	10	6:22	11:27	17:02	23:40
			3.6	2.5	3.2	1.1
E	W	11	6:47	12:25	18:13	. . .
			3.9	2.0	3.3	. . .
	Th	12	0:26	7:11	13:14	19:15
			1.1	4.3	1.3	3.4
	F	13	1:06	7:38	13:57	20:06
			1.1	4.6	0.8	3.6
	S	14	1:42	8:02	14:37	20:50
			1.2	4.9	0.3	3.6
●	S	15	2:17	8:30	15:16	21:30
			1.3	5.3	—0.2	3.5
	M	16	2:52	9:00	15:57	22:16
			1.4	5.6	—0.5	3.4
	Tu	17	3:26	9:32	16:42	23:03
			1.5	5.8	—0.7	3.3
N	W	18	4:00	10:05	17:27	23:54
			1.7	5.8	—0.7	3.2
	Th	19	4:37	10:44	18:16	. . .
			1.8	5.7	—0.6	. . .
	F	20	0:50	5:19	11:24	19:08
			3.2	1.9	5.4	—0.4
	S	21	1:59	6:08	12:10	20:02
			3.0	2.1	5.0	—0.1
☽	S	22	3:14	7:21	13:06	21:00
			3.0	2.3	4.5	0.3
P	M	23	4:19	8:50	14:22	21:56
			3.2	2.6	4.0	0.6
E	Tu	24	5:10	10:22	16:02	22:52
			3.6	2.3	3.6	0.9
	W	25	5:52	11:42	17:37	23:48
			3.6	1.6	3.5	1.1
	Th	26	6:33	12:45	18:46	. . .
			4.4	1.0	3.5	. . .
	F	27	0:35	7:10	13:39	20:00
			1.2	4.9	0.4	3.5
	S	28	1:16	7:45	14:26	20:52
			1.3	5.3	—0.1	3.4
○	S	29	1:57	8:20	15:11	21:39
			1.3	5.6	—0.5	3.3
	M	30	2:34	8:54	15:56	22:27
			1.4	5.9	—0.7	3.2
S	Tu	31	3:12	9:28	16:38	23:14
			1.5	5.9	—0.8	3.1

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	3:50	10:08	17:20	. . .
			1.7	5.8	—0.7	. . .
	Th	2	0:08	4:27	10:37	18:02
			3.0	2.0	5.6	—0.5
	F	3	0:55	5:08	11:10	18:46
			2.9	2.1	5.2	—0.2
	S	4	1:50	5:52	11:45	19:30
			3.0	2.4	4.7	0.0
A	S	5	2:45	6:52	12:22	20:12
			3.0	2.5	4.2	0.4
☾	M	6	3:40	8:06	13:09	20:56
			3.1	2.6	3.7	0.8
E	Tu	7	4:28	9:27	14:12	21:44
			3.4	2.6	3.1	1.0
	W	8	5:00	10:50	15:55	22:40
			3.9	2.5	2.7	1.1
	Th	9	5:46	11:57	17:40	23:30
			4.2	1.8	2.7	1.4
	F	10	6:20	12:52	18:53	. . .
			4.5	1.3	2.8	. . .
	S	11	0:15	6:53	13:39	19:51
			1.4	5.0	0.6	2.9
	S	12	0:58	7:26	14:22	20:45
			1.5	5.4	—0.1	3.0
	M	13	1:40	8:00	15:05	21:35
			1.5	5.7	—0.5	3.2
● N	Tu	14	2:21	8:37	15:50	22:33
			1.6	6.1	—1.0	3.2
	W	15	3:02	9:13	16:34	23:12
			1.6	6.2	—1.2	3.2
	Th	16	3:54	9:53	17:19	. . .
			1.7	6.1	—1.2	. . .
P	F	17	0:02	4:28	10:34	18:06
			3.0	2.0	5.9	—0.9
	S	18	0:54	5:16	11:17	18:52
			3.0	2.0	5.5	—0.6
	S	19	1:45	6:12	12:04	19:38
			3.2	2.1	4.9	—0.1
☽	M	20	2:35	7:21	12:57	20:24
			3.3	2.4	4.2	0.4
E	Tu	21	3:30	8:42	14:02	21:13
			3.6	2.3	3.6	0.8
	W	22	4:22	10:10	15:37	22:09
			3.9	2.0	3.0	1.2
	Th	23	5:12	11:33	17:38	23:00
			4.2	1.6	2.9	1.5
	F	24	5:58	12:41	19:00	23:49
			4.6	1.0	2.6	1.6
	S	25	6:40	13:38	20:02	. . .
			5.0	0.5	2.7	. . .
	S	26	0:34	7:17	14:24	20:52
			1.7	5.4	—0.1	2.7
S	M	27	1:17	7:55	15:05	21:38
			1.8	5.7	—0.5	2.8
○	Tu	28	2:00	8:31	15:44	22:20
			1.5	5.8	—0.7	2.8
	W	29	2:42	9:06	16:22	23:00
			1.7	5.9	—0.8	2.9
	Th	30	3:23	9:40	16:58	23:40
			1.8	5.9	—0.8	3.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hongkong Mean Local Civil, for the meridian 114° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:04 2.1	10:12 6.0	17:35 —0.6	. . .
	S	2	0:21 3.1	4:47 1.6	10:46 6.1	18:11 —0.4
A	S	3	0:56 3.0	5:33 1.1	11:18 5.8	18:47 —0.4
	M	4	1:32 3.2	6:28 1.3	11:55 5.4	19:23 —0.2
E	Tu	5	2:14 3.6	7:32 1.4	12:42 4.9	20:00 —0.1
☾	W	6	3:00 3.9	8:45 1.7	13:34 4.4	20:45 0.1
	Th	7	3:50 4.2	10:05 1.9	14:50 3.9	21:38 0.4
	F	8	4:40 4.5	11:20 1.9	16:47 3.5	22:30 0.4
	S	9	5:25 5.1	12:25 1.5	18:25 3.0	23:24 0.5
	S	10	6:11 5.5	13:19 1.1	19:42 2.9	. . .
	M	11	0:19 0.4	6:56 6.0	14:08 0.3	20:38 2.7
N	Tu	12	1:12 0.4	7:40 6.5	14:52 —0.3	21:27 2.6
●	W	13	2:02 0.3	8:24 6.8	15:37 —0.7	22:14 2.6
	Th	14	2:49 0.3	9:05 6.8	16:20 —1.0	22:57 2.6
P	F	15	3:37 0.4	9:50 6.9	17:02 —1.0	23:41 2.7
	S	16	4:25 0.4	10:32 6.5	17:45 —0.8	. . .
	S	17	0:28 3.2	5:17 0.6	11:16 6.2	18:27 —0.4
E	M	18	1:02 3.3	6:12 1.0	12:02 5.6	19:07 —0.2
	Tu	19	1:47 3.8	7:14 1.1	12:52 4.8	19:48 0.2
☽	W	20	2:35 4.1	8:30 1.5	13:53 4.0	20:34 0.6
	Th	21	3:31 4.2	9:53 1.8	15:40 3.4	21:25 0.8
	F	22	4:29 4.4	11:20 2.1	17:35 3.1	22:12 0.9
	S	23	5:23 4.6	12:40 2.1	19:13 3.3	23:08 0.9
	S	24	6:13 5.0	13:37 1.7	20:17 3.6	. . .
S	M	25	0:01 0.8	6:58 5.3	14:29 1.3	20:59 3.3
	Tu	26	0:52 0.9	7:38 5.6	14:54 0.9	21:35 2.9
○	W	27	1:40 0.8	8:16 5.8	15:30 0.3	22:05 2.7
	Th	28	2:27 0.8	8:50 6.1	15:59 0.0	22:34 2.6
	F	29	3:09 0.7	9:25 6.1	16:30 —0.2	23:06 2.9
	S	30	3:48 0.7	9:56 6.0	17:02 —0.3	23:30 3.1
A	S	31	4:31 0.9	10:28 5.9	17:33 —0.4	23:56 3.7

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	5:16 1.0	11:00 5.5	18:04 —0.2	. . .
	Tu	2	0:27 4.1	6:05 1.0	11:37 5.1	18:35 —0.2
	W	3	1:02 4.2	7:00 1.1	12:20 4.6	19:10 0.0
☾	Th	4	1:44 4.7	8:02 1.3	13:07 4.2	19:54 0.3
	F	5	2:30 4.8	9:16 1.3	14:10 3.6	20:37 0.5
	S	6	3:23 5.0	10:36 1.5	16:16 3.0	21:33 0.7
	S	7	4:27 5.2	11:52 1.3	18:15 2.8	22:40 0.8
N	M	8	5:32 5.5	12:54 0.9	19:31 2.7	23:52 0.9
	Tu	9	6:30 5.8	13:54 0.4	20:24 2.6	. . .
	W	10	0:54 0.7	7:23 6.2	14:32 —0.2	21:07 2.6
●	Th	11	1:50 0.6	8:12 6.4	15:16 —0.4	21:47 2.7
P	F	12	2:41 0.5	9:00 6.6	16:00 —0.6	22:27 3.1
	S	13	3:32 0.5	9:47 6.3	16:38 —0.6	23:04 3.7
E	S	14	4:20 0.5	10:30 6.0	17:17 —0.4	23:38 3.8
	M	15	5:10 0.8	11:16 5.3	17:56 0.0	. . .
	Tu	16	0:16 3.9	6:04 1.0	12:02 4.7	18:34 0.3
	W	17	0:57 4.2	7:04 1.2	12:50 3.8	19:16 1.2
☽	Th	18	1:48 4.2	8:12 1.3	13:54 2.9	19:57 1.7
	F	19	2:35 4.2	9:30 1.4	15:42 2.6	20:35 2.1
	S	20	3:37 4.2	11:02 1.3	17:53 2.6	21:32 2.2
S	S	21	4:47 4.2	12:27 1.1	19:32 2.6	22:40 2.3
	M	22	5:50 4.5	13:26 0.9	20:21 2.6	23:45 2.3
	Tu	23	6:43 4.7	14:02 0.4	20:51 2.6	. . .
	W	24	0:43 2.3	7:25 4.9	14:32 0.2	21:16 2.9
	Th	25	1:32 2.2	8:03 4.9	15:00 0.1	21:38 3.1
○	F	26	2:18 2.0	8:37 5.1	15:28 0.0	22:00 3.3
	S	27	3:00 1.7	9:10 5.0	15:57 0.0	22:18 3.8
A	S	28	3:37 1.5	9:44 4.9	16:23 0.1	22:40 4.0
E	M	29	4:18 1.3	10:12 4.7	16:52 0.3	23:02 4.2
	Tu	30	5:00 1.2	10:47 4.3	17:22 0.6	23:32 4.4
	W	31	5:44 1.1	11:24 4.0	17:54 0.9	. . .

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	0:02 4.4	6:30 1.1	12:03 3.5	18:28 1.2
	F	2	0:38 4.5	7:26 1.1	12:39 3.0	19:03 1.6
☾	S	3	1:20 4.6	8:35 1.1	13:47 2.6	19:45 2.0
	S	4	2:16 4.6	9:43 1.0	15:39 2.6	20:50 2.2
N	M	5	3:30 4.6	11:12 0.6	18:05 2.6	22:15 2.2
	Tu	6	4:52 4.8	12:21 0.3	19:14 2.7	23:37 2.2
	W	7	6:06 5.0	13:17 0.0	19:59 3.0	. . .
	Th	8	0:44 1.8	7:07 5.3	14:04 —0.3	20:39 3.7
	F	9	1:42 1.4	8:02 5.6	14:47 —0.5	21:12 4.1
P ●	S	10	2:35 1.0	8:52 5.6	15:27 —0.4	21:48 4.4
E	S	11	3:22 0.6	9:38 5.5	16.07 —0.2	22:20 4.6
	M	12	4:12 0.3	10:25 5.2	16:47 0.1	22:56 4.8
	Tu	13	5:01 0.3	11:12 4.8	17:25 0.6	23:32 4.7
	W	14	5:49 0.3	12:00 4.1	18:00 1.2	. . .
	Th	15	0:10 4.7	6:42 0.5	12:52 3.3	18:36 1.7
☽	F	16	0:49 4.5	7:47 0.8	14:00 2.8	19:15 2.1
S	S	17	1:37 4.4	8:59 0.9	15:48 2.6	19:57 2.3
	S	18	2:33 4.2	10:20 1.0	18:02 2.6	21:02 2.5
	M	19	3:57 4.0	11:40 0.9	19:18 2.6	22:27 2.6
	Tu	20	5:17 4.0	12:40 0.8	19:57 2.9	23:40 2.6
	W	21	6:20 4.0	13:20 0.7	20:21 3.0	. . .
	Th	22	0:42 2.5	7:07 4.2	13.52 0.6	20.40 3.5
A	F	23	1:30 2.1	7:47 4.3	14:20 0.5	20:59 3.8
	S	24	2:10 1.6	8:23 4.4	14:51 0.5	21:12 4.1
○ E	S	25	2:50 1.2	8:57 4.4	15:18 0.6	21:32 4.4
	M	26	3:30 0.9	9:31 4.3	15:48 0.7	21:54 5.6
	Tu	27	4:07 0.6	10:14 4.3	16:16 0.8	22:17 4.7
	W	28	4:43 0.5	10:37 4.0	16:46 1.1	22:45 4.8
	Th	29	5:22 0.4	11:15 3.6	17:15 1.4	23:16 4.9
	F	30	6:10 0.4	11:56 3.2	17:45 1.7	23:50 4.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hongkong Mean Local Civil, for the Meridian 114° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon: for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	7:05 0.4	12:45 2.9	18:22 2.0	. . . . . .	
N ☾	S	2	0:34 4.9	8:10 0.5	13:57 2.7	19:20 2.3	
	M	3	1:27 4.7	9:22 0.6	16:02 2.7	20:23 2.3	
	Tu	4	2:41 4.5	10:35 0.4	17:30 2.7	22:00 2.4	
	W	5	4:15 4.5	11:44 0.3	18:45 3.1	23:27 2.3	
	Th	6	5:42 4.5	12:38 0.1	19:22 3.6	. . . . . .	
	F	7	0:35 1.7	6:50 4.7	13:57 0.1	19:57 4.2	
P E	S	8	1:32 1.0	7:48 4.9	14:12 0.1	20:30 4.6	
●	S	9	2:15 0.4	8:40 5.0	14:54 0.2	21:05 4.9	
	M	10	3:13 0.0	9:30 4.9	15:32 0.5	21:40 5.2	
	Tu	11	3:59 —0.3	10:18 4.6	16:09 0.8	22:15 5.3	
	W	12	4:47 —0.4	11:06 4.1	16:45 1.3	22:50 5.4	
	Th	13	5:35 —0.3	11:57 3.6	17:22 1.6	23:27 5.2	
	F	14	6:28 —0.1	12:55 3.0	17:57 2.0	. . . . . .	
S	S	15	0:05 5.0	7:25 0.1	14:14 2.8	18:37 2.4	
☽	S	16	0:47 4.6	8:25 0.5	15:47 2.8	19:27 2.4	
	M	17	1:35 4.2	9:32 0.7	17:33 2.8	20:44 2.5	
	Tu	18	2:44 3.8	10:39 0.8	18:32 3.0	22:17 2.6	
	W	19	4:22 3.5	11:35 0.9	19:07 3.2	23:35 2.6	
A	Th	20	5:40 3.3	12:20 0.9	19:32 3.6	. . . . . .	
	F	21	0:31 2.3	6:40 3.4	13:00 1.0	19:48 3.9	
E	S	22	1:20 1.7	7:25 3.6	13:35 1.0	20:07 4.2	
	S	23	2:00 1.1	8:06 3.8	14:08 0.9	20:28 4.5	
○	M	24	2:40 0.7	8:44 3.8	14:36 1.1	20:50 4.8	
	Tu	25	3:15 0.4	9:20 3.8	15:06 1.2	21:14 5.0	
	W	26	3:51 0.1	9:59 3.6	15:37 1.3	21:39 5.3	
	Th	27	4:30 —0.1	10:37 3.4	16:06 1.5	22:08 5.4	
	F	28	5:15 —0.2	11:18 3.1	16:38 1.7	22:41 5.4	
N	S	29	6:02 —0.2	12:05 3.1	17:12 1.8	23:19 5.3	
	S	30	6:53 —0.1	13:05 2.9	17:51 2.0	. . . . . .	
	M	31	0:03 5.1	7:50 0.1	14:23 2.9	18:47 2.3	

NOVEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
☾	Tu	1	0:46 4.8	8:53 0.3	16:04 2.8	20:11 2.4	
	W	2	2:04 4.3	9:58 0.4	17:14 3.2	21:55 2.6	
	Th	3	3:38 4.1	10:58 0.5	17:59 3.6	23:16 2.1	
	F	4	5:15 4.0	11:56 0.6	18:39 4.1	. . . . . .	
E P	S	5	0:25 1.3	6:32 4.0	12:48 0.7	19:17 4.5	
	S	6	1:24 0.6	7:36 4.3	13:33 0.8	19:53 5.0	
●	M	7	2:15 0.0	8:33 4.2	14:12 0.9	20:29 5.4	
	Tu	8	3:02 —0.4	9:25 4.1	14:52 1.1	21:05 5.7	
	W	9	3:48 —0.7	10:16 3.8	15:30 1.2	21:41 5.8	
	Th	10	4:36 —0.8	11:17 3.5	16:05 1.5	22:20 5.8	
S	F	11	5:22 —0.7	12:00 3.2	16:42 1.9	22:52 5.6	
	S	12	6:10 —0.5	12:58 2.9	17:25 2.2	23:30 5.2	
	S	13	7:00 —0.2	14:05 2.8	18:07 2.4	. . . . . .	
	M	14	0:07 4.8	7:52 0.1	15:22 2.8	19:03 2.6	
☽	Tu	15	0:47 4.3	8:42 0.4	16:37 3.1	20:20 2.6	
	W	16	1:38 3.7	9:37 0.8	17:30 3.3	21:50 2.6	
A	Th	17	2:55 3.3	10:27 1.1	18:04 3.6	23:00 2.6	
E	F	18	4:40 3.0	11:12 1.2	18:31 3.9	. . . . . .	
	S	19	0:15 2.0	6:02 3.0	12:03 1.2	19:00 4.2	
	S	20	1:04 1.4	7:05 3.1	12:42 1.3	19:22 4.4	
	M	21	1:47 0.9	7:55 3.3	13:19 1.3	19:47 4.9	
	Tu	22	2:26 0.4	8:38 3.3	13:53 1.3	20:13 5.3	
○	W	23	3:03 —0.1	9:22 3.3	14:28 1.5	20:40 5.5	
	Th	24	3:43 —0.4	10:04 3.2	15:02 1.5	21:11 5.8	
N	F	25	4:25 —0.7	10:50 3.2	15:38 1.7	21:47 5.9	
	S	26	5:09 —0.8	11:35 3.1	16:15 1.7	22:24 5.8	
	S	27	5:55 —0.7	12:27 3.3	16:55 1.9	23:05 5.6	
	M	28	6:42 —0.5	13:22 3.2	17:42 2.2	23:47 5.2	
	Tu	29	7:31 —0.2	14:36 3.1	18:46 2.4	. . . . . .	
☾	W	30	0:38 4.7	8:23 0.1	15:30 3.2	20:11 2.6	

DECEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	Th	1	1:41 4.1	9:18 0.5	16:25 3.6	21:39 2.3	
E	F	2	3:07 3.6	10:13 0.8	17:15 4.0	23:05 1.8	
P	S	3	4:48 3.5	11:10 1.4	18:00 4.4	. . . . . .	
	S	4	0:17 1.2	6:25 3.4	12:02 1.2	18:41 4.9	
	M	5	1:16 0.5	7:35 3.4	12:48 1.3	19:20 5.4	
	Tu	6	2:05 —0.1	8:30 3.3	13:32 1.4	20:00 5.7	
●	W	7	2:53 —0.6	9:23 3.3	14:13 1.4	20:37 6.0	
S	Th	8	3:40 —0.9	10:11 3.2	14:53 1.4	21:14 6.1	
	F	9	4:23 —1.0	11:00 3.2	15:35 1.6	21:54 6.0	
	S	10	5:07 —1.0	11:47 3.2	16:15 1.8	22:27 5.8	
	S	11	5:48 —0.8	12:38 3.1	16:58 2.0	23:02 5.4	
	M	12	6:30 —0.5	13:30 3.1	17:43 2.4	23:39 4.8	
	Tu	13	7:13 —0.1	14:26 3.2	18:39 2.6	. . . . . .	
☽	W	14	0:15 4.3	7:55 0.3	15:15 3.3	19:48 2.6	
A	Th	15	0:58 3.7	8:36 0.7	16:03 3.6	21:09 2.6	
E	F	16	1:43 3.2	9:17 1.0	16:49 3.8	22:30 2.6	
	S	17	3:17 2.6	10:15 1.2	17:26 4.2	23:42 2.0	
	S	18	5:15 2.6	11:00 1.4	18:05 4.4	. . . . . .	
	M	19	0:41 1.4	6:35 2.6	11:47 1.5	18:37 4.8	
	Tu	20	1:30 0.8	7:37 2.6	12:32 1.5	19:10 5.2	
	W	21	2:11 0.2	8:32 2.7	13:15 1.5	19:46 5.6	
	Th	22	2:51 —0.4	9:18 2.9	13:58 1.7	20:18 5.9	
○ N	F	23	3:34 —0.8	10:05 2.9	14:40 1.7	20:55 6.1	
	S	24	4:16 —1.1	10:52 3.2	15:22 1.7	21:35 6.1	
	S	25	4:59 —1.1	11:36 3.2	16:05 1.8	22:14 5.8	
	M	26	5:42 —1.0	12:24 3.2	16:52 1.9	22:56 5.6	
	Tu	27	6:26 —0.7	13:06 3.3	17:46 2.1	23:40 5.1	
P	W	28	7:09 —0.3	13:52 3.3	18:48 2.3	. . . . . .	
E ☾	Th	29	0:28 4.8	7:52 0.2	14:42 3.6	20:02 2.3	
	F	30	1:27 3.7	8:38 0.8	15:37 3.9	21:27 2.0	
	S	31	2:46 3.1	9:30 1.2	16:32 4.2	22:52 1.7	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hongkong Mean Local Civil, for the meridian 114° 10′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	1:53 2.9	8:02 7.0	14:40 0.2	21:35 6.4
N	S	2	2:51 2.8	8:50 7.5	15:28 —0.6	22:20 6.8
○	S	3	3:39 2.7	9:36 7.9	16:12 —1.2	23:05 7.1
P	M	4	4:23 2.5	10:20 8.2	16:56 —1.6	23:40 7.3
	Tu	5	5:05 2.3	11:04 8.4	17:38 —1.7	. . . . . .
	W	6	0:21 7.3	5:49 2.1	11:50 8.4	18:21 —1.5
	Th	7	1:02 7.3	6:32 1.9	12:35 8.2	19:05 —1.1
E	F	8	1:44 7.2	7:20 1.9	13:27 7.8	19:51 —0.4
	S	9	2:21 7.0	8:12 1.9	14:22 7.2	20:41 0.5
☾	S	10	3:17 6.9	9:12 1.8	15:27 6.5	21:38 1.3
	M	11	4:10 6.7	10:20 1.8	16:45 6.0	22:41 2.2
	Tu	12	5:10 6.5	11:38 1.6	18:18 5.7	23:58 2.8
	W	13	6:12 6.5	13:07 1.3	19:47 5.8	. . . . . .
	Th	14	1:17 3.2	7:13 6.7	14:13 0.6	20:57 6.1
S	F	15	2:18 3.3	8:10 6.9	15:08 0.0	21:50 6.4
	S	16	3:22 3.3	9:00 7.2	15:54 —0.4	22:32 6.6
●	S	17	4:02 3.0	9:43 7.5	16:30 —0.7	23:10 6.7
	M	18	4:35 2.8	10:23 7.7	17:00 —0.7	23:40 6.7
	Tu	19	5:06 2.7	10:57 7.7	17:30 —0.7	. . . . . .
A	W	20	0:08 6.8	5:34 2.4	11:32 7.6	17:57 —0.4
	Th	21	0:35 6.8	6:05 2.2	12:05 7.5	18:27 —0.3
	F	22	1:02 6.9	6:37 2.0	12:40 7.3	18:59 0.0
E	S	23	1:32 7.0	7:15 1.9	13:18 6.9	19:33 0.5
	S	24	2:05 7.0	7:58 1.9	14:00 6.5	20:09 1.1
	M	25	2:42 6.9	8:42 1.9	14:49 6.0	20:49 1.7
☽	Tu	26	3:24 6.7	9:37 1.8	15:53 5.6	21:40 2.3
	W	27	4:15 6.5	10:38 1.8	17:14 5.2	22:43 2.9
	Th	28	5:16 6.3	11:56 1.6	18:52 5.1	. . . . . .
	F	29	0:00 3.4	6:25 6.4	13:15 1.2	20:16 5.5
N	S	30	1:22 3.5	7:32 6.8	14:22 0.3	21:18 6.0
	S	31	2:33 3.3	8:32 7.2	15:16 —0.5	22:07 6.6

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○	M	1	3:28 2.9	9:24 7.7	16:04 —1.1	22:48 7.0
P	Tu	2	4:15 2.4	10:13 8.3	16:47 —1.4	23:26 7.2
	W	3	4:55 1.9	11:00 8.5	17:28 —1.5	. . . . . .
	Th	4	0:02 7.5	5:37 1.5	11:44 8.5	18:08 —1.3
E	F	5	0:38 7.5	6:20 1.2	12:29 8.5	18:50 —0.8
	S	6	1:15 7.6	7:02 1.0	13:16 8.0	19:30 0.0
	S	7	1:55 7.4	7:50 0.9	14:07 7.4	20:16 0.8
☾	M	8	2:35 7.1	8:42 1.1	15:05 6.7	21:00 1.7
	Tu	9	3:22 6.7	9:38 1.3	16:14 5.8	21:53 2.6
	W	10	4:16 6.5	10:50 1.5	17:47 5.4	23:02 3.4
	Th	11	5:22 6.3	12:26 1.3	19:27 5.3	. . . . . .
S	F	12	0:34 3.8	6:35 6.3	13:52 0.9	20:42 5.6
	S	13	2:05 3.8	7:43 6.5	14:52 0.5	21:35 6.0
	S	14	3:07 3.4	8:40 6.9	15:37 0.0	22:15 6.4
	M	15	3:50 3.0	9:28 7.2	16:14 —0.2	22:47 6.7
A ●	Tu	16	4:20 2.6	10:10 7.4	16:42 —0.3	23:12 6.9
	W	17	4:50 2.2	10:46 7.6	17:18 —0.3	23:37 7.1
	Th	18	5:16 1.8	11:18 7.7	17:34 —0.3	. . . . . .
E	F	19	0:00 7.2	5:45 1.5	11:50 7.7	18:03 —0.1
	S	20	0:27 7.4	6:15 1.2	12:22 7.5	18:34 0.2
	S	21	0:55 7.4	6:47 1.0	13:00 7.3	19:03 0.6
	M	22	1:24 7.4	7:25 1.0	13:38 6.9	19:38 1.1
	Tu	23	1:59 7.1	8:09 1.0	14:26 6.4	20:17 1.8
☽	W	24	2:38 6.8	8:59 1.1	15:25 5.8	21:02 2.5
	Th	25	3:26 6.5	9:58 1.3	16:43 5.2	22:00 3.2
N	F	26	4:28 6.2	11:17 1.4	18:27 5.2	23:25 3.8
	S	27	5:49 6.1	12:47 1.1	20:02 5.5	. . . . . .
	S	28	1:07 3.8	7:11 6.5	14:07 0.5	21:05 6.0
	M	29	2:27 3.3	8:20 7.1	15:08 —0.2	21:50 6.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MARCH.			
P	Tu	1	3:22 2.7	9:17 7.7	15:55 —0.7	22:28 7.1
○	W	2	4:07 1.9	10:07 8.3	16:36 —1.0	23:02 7.5
E	Th	3	4:46 1.2	10:52 8.7	17:15 —0.9	23:36 7.7
	F	4	5:24 0.7	11:36 8.8	17:52 —0.6	. . . . . .
	S	5	0:07 7.8	6:02 0.3	12:20 8.5	18:30 —0.1
	S	6	0:42 7.9	6:42 0.2	13:04 8.1	19:07 0.6
	M	7	1:17 7.6	7:25 0.2	13:50 7.4	19:44 1.4
	Tu	8	1:54 7.3	8:08 0.4	14:42 6.5	20:23 2.2
☾	W	9	2:37 6.9	9:01 0.7	15:45 5.6	21:09 3.0
S	Th	10	3:29 6.4	10:08 1.3	17:10 5.1	22:10 3.8
	F	11	4:33 6.0	11:37 1.5	18:57 5.1	23:50 4.0
	S	12	5:56 5.8	13:16 1.4	20:14 5.4	. . . . . .
	S	13	1:44 3.9	7:17 6.0	14:24 1.0	21:04 5.9
A	M	14	2:46 3.4	8:23 6.3	15:10 0.7	21:42 6.4
	Tu	15	3:27 2.7	9:12 6.8	15:45 0.4	22:10 6.7
	W	16	3:59 2.1	9:54 7.2	16:13 0.3	22:36 7.0
● E	Th	17	4:25 1.5	10:27 7.5	16:40 0.2	22:58 7.4
	F	18	4:52 1.1	11:00 7.7	17:08 0.2	23:24 7.6
	S	19	5:18 0.6	11:32 7.8	17:37 0.3	23:48 7.7
	S	20	5:49 0.4	12:06 7.7	18:05 0.5	. . . . . .
	M	21	0:17 7.6	6:22 0.2	12:42 7.6	18:37 0.9
	Tu	22	0:47 7.5	7:00 0.1	13:23 7.2	19:11 1.5
	W	23	1:21 7.3	7:40 0.2	14:10 6.6	19:50 2.1
N	Th	24	2:00 7.0	8:27 0.5	15:07 6.0	20:35 2.9
☽	F	25	2:50 6.6	9:27 0.9	16:20 5.3	21:37 3.5
	S	26	3:55 6.2	10:44 1.2	18:03 5.1	23:08 4.0
	S	27	5:22 6.0	12:20 1.1	19:39 5.6	. . . . . .
	M	28	1:02 3.6	6:57 6.3	13:47 0.7	20:40 6.2
	Tu	29	2:19 2.9	8:12 6.9	14:51 0.3	21:23 6.7
P	W	30	3:09 2.0	9:10 7.6	15:38 0.0	21:59 6.7
E ○	Th	31	3:50 1.2	10:00 8.2	16:19 —0.1	22:32 6.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Singapore Mean Local Civil for the meridian 108° 51′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:29 0.4	10:45 8.5	16:57 0.0	23:04 6.9
	S	2	5:06 —0.1	11:27 8.6	17:33 0.3	23:37 7.9
	S	3	5:42 —0.5	12:10 8.3	18:06 0.8	. . . . . .
	M	4	0:08 7.9	6:20 —0.6	12:52 7.8	18:40 1.4
	Tu	5	0:42 7.8	7:00 —0.4	13:35 7.1	19:14 2.0
S	W	6	1:17 7.4	7:42 0.0	14:22 6.3	19:50 2.7
	Th	7	1:57 6.9	8:30 0.5	15:19 5.6	20:34 3.3
☾	F	8	2:45 6.4	9:26 1.1	16:33 5.2	21:32 3.8
	S	9	3:49 5.8	10:40 1.6	18:05 5.1	23:05 4.0
	S	10	5:15 5.5	12:12 1.8	19:25 5.4	. . . . . .
A	M	11	1:06 8.7	6:46 5.6	13:32 1.7	20:17 5.8
	Tu	12	2:14 8.0	7:56 5.9	14:26 1.4	20:52 6.3
	W	13	2:55 2.3	8:49 6.4	15:05 1.2	21:23 6.8
E	Th	14	3:26 1.6	9:30 6.9	15:35 1.1	21:51 7.1
	F	15	3:54 1.0	10:06 7.3	16:08 0.9	22:18 7.4
●	S	16	4:22 0.5	10:41 7.7	16:36 0.9	22:45 7.7
	S	17	4:52 0.0	11:15 7.7	17:07 1.0	23:13 7.8
	M	18	5:24 —0.4	11:52 7.7	17:38 1.2	23:48 7.9
	Tu	19	6:00 —0.6	12:30 7.6	18:12 1.5	. . . . . .
	W	20	0:16 7.8	6:34 —0.7	13:10 7.2	18:47 1.9
N	Th	21	0:53 7.6	7:18 —0.4	14:00 6.6	19:28 2.5
	F	22	1:34 7.2	8:08 0.0	14:55 6.1	20:10 3.1
☽	S	23	2:26 6.7	9:06 0.5	16:06 5.7	21:27 3.6
	S	24	3:35 6.2	10:21 1.0	17:35 5.5	23:00 3.6
	M	25	5:07 5.9	11:52 1.2	19:00 5.8	. . . . . .
	Tu	26	0:47 3.1	6:42 6.2	13:20 1.1	20:00 6.4
P E	W	27	1:58 2.3	8:02 6.7	14:26 0.9	20:46 6.9
	Th	28	2:49 1.4	9:01 7.4	15:16 0.8	21:25 7.3
	F	29	3:32 0.6	9:52 7.9	16:00 0.8	22:00 7.6
○	S	30	4:11 —0.2	10:37 8.1	16:35 1.0	22:35 7.9

MAY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	4:47 —0.7	11:20 8.1	17:11 1.3	23:06 8.0
	M	2	5:26 —1.0	12:02 7.8	17:42 1.7	23:40 8.0
	Tu	3	6:02 —1.0	12:41 7.3	18:14 2.1	. . . . . .
S	W	4	0:13 7.8	6:41 —0.7	13:22 6.8	18:47 2.5
	Th	5	0:49 7.5	7:20 —0.3	14:05 6.2	19:24 2.9
	F	6	1:28 7.0	8:02 0.3	14:54 5.8	20:10 3.3
☾	S	7	2:16 6.4	8:52 1.0	15:54 5.4	21:04 3.6
A	S	8	3:13 5.8	9:48 1.5	17:00 5.3	22:28 3.7
	M	9	4:27 5.3	10:57 1.9	18:08 5.5	. . . . . .
	Tu	10	0:08 3.4	5:58 5.2	12:15 2.1	19:07 5.8
E	W	11	1:21 2.8	7:17 5.5	13:20 2.1	19:50 6.2
	Th	12	2:09 2.1	8:14 6.0	14:12 2.0	20:30 6.6
	F	13	2:49 1.4	9:02 6.5	14:57 1.7	21:04 7.1
	S	14	3:20 0.7	9:44 7.0	15:32 1.6	21:39 7.4
●	S	15	3:52 0.0	10:22 7.3	16:06 1.6	22:09 7.7
	M	16	4:26 —0.6	11:00 7.4	16:39 1.7	22:42 7.9
	Tu	17	5:03 —0.9	11:40 7.5	17:16 1.8	23:16 8.0
N	W	18	5:41 —1.2	12:21 7.3	17:50 2.0	23:53 8.0
	Th	19	6:20 —1.1	13:05 7.1	18:30 2.3	. . . . . .
	F	20	0:34 7.7	7:06 —0.9	13:50 6.8	19:16 2.7
	S	21	1:20 7.4	7:53 —0.3	14:44 6.4	20:10 3.0
☽	S	22	2:14 6.8	8:49 0.2	15:48 6.1	21:19 3.2
P	M	23	3:24 6.3	10:00 0.9	17:00 6.0	22:46 3.1
E	Tu	24	4:50 6.0	11:17 1.3	18:10 6.1	. . . . . .
	W	25	0:15 2.5	6:25 6.1	12:45 1.6	19:11 6.6
	Th	26	1:26 1.8	7:45 6.5	13:54 1.7	20:04 6.8
	F	27	2:27 0.9	8:50 7.0	14:50 1.7	20:49 7.2
	S	28	3:16 0.1	9:44 7.4	15:36 1.8	21:28 7.6
○	S	29	3:59 —0.6	10:34 7.5	16:16 2.0	22:07 7.8
	M	30	4:37 —1.0	11:14 7.4	16:50 2.2	22:42 8.0
S	Tu	31	5:15 —1.2	11:54 7.2	17:21 2.4	23:17 7.9

JUNE.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	5:50 —1.1	12:33 7.0	17:55 2.6	23:51 7.8
	Th	2	6:25 —0.8	13:08 6.5	18:27 2.7	. . . . . .
	F	3	0:27 7.5	7:00 —0.4	13:47 6.3	19:05 2.9
	S	4	1:06 7.0	7:37 0.2	14:26 6.1	19:48 3.1
A	S	5	1:48 6.5	8:17 0.7	15:12 5.9	20:40 3.2
☾	M	6	2:40 5.9	9:06 1.3	16:00 5.8	21:43 3.2
E	Tu	7	3:42 5.4	10:02 1.8	16:54 5.9	22:56 3.2
	W	8	5:00 5.1	11:08 2.3	17:50 6.0	. . . . . .
	Th	9	0:11 2.7	6:23 5.2	12:08 2.6	18:45 6.2
	F	10	1:14 2.0	7:35 5.6	13:12 2.6	19:35 6.6
	S	11	2:05 1.3	8:34 5.9	14:07 2.5	20:20 6.9
	S	12	2:49 0.5	9:22 6.4	14:56 2.5	21:00 7.3
	M	13	3:30 —0.2	10:07 6.9	15:38 2.4	21:38 7.7
● N	Tu	14	4:09 —0.8	10:50 7.0	16:17 2.3	22:16 7.9
	W	15	4:48 —1.2	11:32 7.2	16:51 2.3	22:56 8.1
	Th	16	5:29 —1.4	12:12 7.3	17:37 2.3	23:38 8.2
P	F	17	6:11 —1.4	12:56 7.2	18:19 2.3	. . . . . .
	S	18	0:22 8.1	6:56 —1.1	13:41 7.0	19:07 2.4
	S	19	1:12 7.7	7:43 —0.6	14:28 6.8	20:00 2.5
☽	M	20	2:05 7.1	8:35 0.1	15:22 6.6	21:02 2.5
E	Tu	21	3:12 6.6	9:32 0.9	16:18 6.4	22:16 2.3
	W	22	4:32 6.2	10:42 1.6	17:20 6.4	23:35 2.0
	Th	23	6:00 6.0	12:00 2.2	18:22 6.5	. . . . . .
	F	24	0:55 1.4	7:28 6.1	13:17 2.5	19:21 6.7
	S	25	2:07 0.7	8:41 6.4	14:24 2.7	20:14 7.1
	S	26	3:01 —0.1	9:40 6.7	15:17 2.8	21:01 7.4
S	M	27	3:50 —0.6	10:29 6.9	16:00 2.8	21.43 7.7
○	Tu	28	4:28 —1.0	11:10 6.9	16:37 2.8	22:22 7.8
	W	29	5:04 —1.1	11:46 6.9	17:09 2.7	23:00 7.9
	Th	30	5:38 —1.0	12:19 6.8	17:40 2.6	23:37 7.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Singapore Mean Local Civil, for the meridian 108° 51′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	6:10	12:50	18:12	. . .	
			—0.8	6.7	2.6	. . .	
	S	2	0:10	6:40	13:21	18:49	
			7.5	—0.4	6.6	2.5	
A	S	3	0:48	7:12	13:53	19:27	
			7.2	0.1	6.6	2.5	
	M	4	1:27	7:47	14:30	20:10	
			6.7	0.5	6.5	2.5	
E	Tu	5	2:12	8:27	15:09	21:00	
			6.2	1.1	6.5	2.5	
☾	W	6	3:03	9:08	15:54	22:00	
			5.7	1.7	6.4	2.5	
	Th	7	4:05	9:58	16:43	23:02	
			5.3	2.3	6.3	2.4	
	F	8	5:22	11:00	17:40	. . .	
			5.1	2.8	6.3	. . .	
	S	9	0:12	6:40	12:10	18:41	
			2.0	5.0	3.1	6.4	
	S	10	1:22	8:07	13:22	19:37	
			1.3	5.5	3.2	6.7	
	M	11	2:20	9:08	14:26	20:28	
			0.5	5.9	3.1	7.1	
N	Tu	12	3:12	9:58	15:17	21:17	
			—0.2	6.4	2.9	7.6	
○	W	13	3:56	10:40	16:03	22:01	
			—0.9	6.8	2.6	8.0	
	Th	14	4:38	11:21	16:45	22:45	
			—1.1	7.1	2.3	8.3	
P	F	15	5:20	12:02	17:28	23:29	
			—1.4	7.3	2.1	8.4	
	S	16	6:02	12:40	18:10	. . .	
			—1.5	7.3	1.8	. . .	
	S	17	0:15	6:43	13:20	18:56	
			8.4	—1.2	7.3	1.7	
E	M	18	1:03	7:27	14:02	19:44	
			8.0	—0.6	7.2	1.6	
	Tu	19	1:55	8:12	14:46	20:40	
			7.5	0.2	7.1	1.6	
☽	W	20	2:56	9:07	15:35	21:41	
			6.9	1.0	6.8	1.6	
	Th	21	4:06	10:02	16:31	22:51	
			6.3	2.0	6.5	1.6	
	F	22	5:32	11:12	17:33	. . .	
			5.7	2.7	6.4	. . .	
	S	23	0:20	7:10	12:35	18:42	
			1.3	5.6	3.3	6.5	
	S	24	1:45	8:32	14:00	19:45	
			0.7	5.9	3.4	6.8	
S	M	25	2:48	9:31	15:02	20:39	
			0.1	6.3	3.7	7.1	
	Tu	26	3:38	10:18	15:49	21:28	
			—0.3	6.5	3.1	7.5	
○	W	27	4:19	10:57	16:26	22:11	
			—0.7	6.7	2.8	7.7	
	Th	28	4:52	11:30	16:57	22:50	
			—0.8	6.8	2.7	7.8	
	F	29	5:25	11:56	17:26	23:25	
			—0.7	6.8	2.2	7.7	
	S	30	5:50	12:22	17:57	23:58	
			—0.5	6.9	2.0	7.6	
A	S	31	6:17	12:50	18:28	. . .	
			—0.3	7.0	1.8	. . .	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	0:32	6:47	13:16	19:02	
			7.3	0.1	7.1	1.7	
	Tu	2	1:07	7:19	13:47	19:38	
			7.1	0.5	7.1	1.7	
	W	3	1:46	7:52	14:20	20:22	
			6.6	1.1	7.0	1.7	
☾	Th	4	2:32	8:29	14:59	21:11	
			6.2	1.7	6.8	1.7	
	F	5	3:26	9:11	15:45	22:06	
			5.6	2.2	6.4	1.7	
	S	6	4:37	10:04	16:40	23:18	
			5.1	2.9	6.2	1.7	
	S	7	6:10	11:16	17:50	. . .	
			4.9	3.4	6.2	. . .	
N	M	8	0:40	7:45	12:46	19:00	
			1.4	5.1	3.7	6.5	
	Tu	9	1:55	8:55	14:07	20:07	
			0.7	5.7	3.5	6.9	
	W	10	2:58	9:47	15:07	21:03	
			0.0	6.3	3.1	7.5	
●	Th	11	3:45	10:28	15:54	21:52	
			—0.7	6.9	2.5	8.0	
P	F	12	4:27	11:05	16:35	22:37	
			—1.1	7.2	2.0	8.5	
	S	13	5:08	11:40	17:18	23:24	
			—1.4	7.4	1.4	8.6	
E	S	14	5:46	12:14	17:58	. . .	
			—1.2	7.6	1.0	. . .	
	M	15	0:09	6:28	12:50	18:39	
			8.6	—0.8	7.7	0.7	
	Tu	16	0:54	7:08	13:28	19:24	
			8.3	—0.2	7.6	0.6	
	W	17	1:44	7:50	14:08	20:14	
			7.7	0.6	7.3	0.7	
☽	Th	18	2:37	8:33	14:52	21:07	
			7.1	1.5	7.0	0.9	
	F	19	3:42	9:24	15:44	22:13	
			6.2	2.4	6.6	1.2	
	S	20	5:05	10:25	16:47	23:43	
			5.4	3.3	6.3	1.3	
S	S	21	6:50	11:56	18:02	. . .	
			5.3	3.9	6.3	. . .	
	M	22	1:20	8:16	13:40	19:17	
			1.0	5.5	3.8	6.4	
	Tu	23	2:30	9:14	14:49	20:22	
			0.5	6.0	3.4	6.7	
	W	24	3:22	9:57	15:37	21:16	
			0.2	6.4	3.0	7.2	
	Th	25	4:02	10:32	16:12	22:00	
			—0.1	6.7	2.5	7.4	
○	F	26	4:34	11:00	16:42	22:38	
			—0.3	6.9	2.0	7.6	
A	S	27	5:01	11:26	17:08	23:10	
			—0.2	7.1	1.6	7.8	
E	S	28	5:25	11:48	17:35	23:42	
			—0.1	7.3	1.3	7.7	
	M	29	5:52	12:12	18:04	. . .	
			0.1	7.4	1.0	. . .	
	Tu	30	0:14	6:21	12:37	18:35	
			7.6	0.3	7.5	0.8	
	W	31	0:47	6:48	13:06	19:08	
			7.3	0.7	7.4	0.8	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	1:25	7:20	13:38	19:50	
			7.0	1.2	7.1	0.8	
	F	2	2:09	7:57	14:14	20:32	
			6.5	1.7	6.9	1.0	
☾	S	3	2:59	8:37	14:57	21:26	
			5.9	2.4	6.6	1.2	
	S	4	4:04	9:28	15:52	22:34	
			5.3	3.2	6.2	1.5	
N	M	5	5:38	10:37	17:10	. . .	
			4.9	3.7	6.1	. . .	
	Tu	6	0:04	7:23	12:22	18:35	
			1.4	5.2	3.9	6.2	
	W	7	1:32	8:36	13:58	19:52	
			0.9	5.7	3.5	6.8	
	Th	8	2:40	9:25	15:00	20:54	
			0.2	6.4	2.8	7.4	
	F	9	3:32	10:04	15:42	21:44	
			—0.3	6.9	2.0	8.1	
P ●	S	10	4:13	10:40	16:23	22:32	
			—0.7	7.4	1.2	8.5	
E	S	11	4:52	11:12	17:02	23:16	
			—0.7	7.7	0.6	8.7	
	M	12	5:30	11:45	17:40	. . .	
			—0.5	7.9	0.1	. . .	
	Tu	13	0:00	6:08	12:18	18:20	
			8.7	—0.1	8.0	—0.1	
	W	14	0:45	6:46	12:44	19:02	
			8.3	0.5	7.8	—0.2	
	Th	15	1:30	7:22	13:30	19:45	
			7.7	1.2	7.5	0.0	
☽	F	16	2:21	8:04	14:11	20:38	
			6.9	2.0	7.1	0.4	
S	S	17	3:22	8:47	15:02	21:38	
			6.1	2.8	6.7	0.9	
	S	18	4:37	9:45	16:04	23:00	
			5.3	3.5	6.2	1.4	
	M	19	6:18	11:14	17:26	. . .	
			5.2	3.9	5.9	. . .	
	Tu	20	0:40	7:46	13:17	18:53	
			1.4	5.5	3.9	6.0	
	W	21	2:00	8:44	14:31	20:06	
			1.1	5.9	3.2	6.3	
	Th	22	2:55	9:23	15:17	21:00	
			0.8	6.4	2.6	6.8	
A	F	23	3:33	9:56	15:48	21:44	
			0.6	6.8	2.0	7.1	
	S	24	4:04	10:22	16:16	22:20	
			0.5	7.1	1.4	7.5	
○ E	S	25	4:30	10:45	16:42	22:52	
			0.5	7.3	0.9	7.6	
	M	26	4:57	11:09	17:08	23:24	
			0.5	7.5	0.6	7.7	
	Tu	27	5:22	11:34	17:36	23:56	
			0.6	7.6	0.3	7.7	
	W	28	5:50	12:00	18:07	. . .	
			0.8	7.7	0.1	. . .	
	Th	29	0:30	6:18	12:29	18:42	
			7.5	1.1	7.6	0.0	
	F	30	1:07	6:52	13:00	19:20	
			7.2	1.5	7.4	0.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Singapore Mean Local Civil, for the meridian 103° 51′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	OCTOBER.					
	S	1	1:49	7:29	13:38	20:02
			6.7	2.0	7.1	0.3
N ☾	S	2	2:40	8:12	14:22	20:56
			6.1	2.7	6.7	0.7
	M	3	3:47	9:06	15:20	22:03
			5.5	3.4	6.3	1.2
	Tu	4	5:16	10:22	16:40	23:31
			5.2	3.9	5.9	1.3
	W	5	6:53	12:13	18:16	. . .
			5.3	3.7	6.0	. . .
	Th	6	1:05	8:06	13:05	19:40
			1.1	5.9	3.2	6.6
	F	7	2:17	8:55	14:42	20:45
			0.7	6.6	2.2	7.2
P E	S	8	3:12	9:32	15:26	21:36
			0.3	7.1	1.3	7.9
●	S	9	3:52	10:07	16:05	22:24
			0.2	7.6	0.5	8.3
	M	10	4:33	10:40	16:46	23:06
			0.2	7.8	—0.2	8.6
	Tu	11	5:11	11:14	17:21	23:51
			0.4	8.0	—0.7	8.4
	W	12	5:46	11:48	18:00	. . .
			0.8	8.0	—0.8	. . .
	Th	13	0:34	6:21	12:21	18:41
			8.0	1.3	7.9	—0.8
	F	14	1:17	6:55	12:57	19:23
			7.4	1.9	7.7	0.4
S	S	15	2:05	7:35	13:38	20:12
			6.7	2.5	7.2	0.1
☽	S	16	3:00	8:17	14:26	21:06
			6.0	3.1	6.7	0.7
	M	17	4:07	9:13	15:27	22:14
			5.3	3.6	6.0	1.4
	Tu	18	5:32	10:42	16:48	23:42
			5.2	3.8	5.6	1.7
	W	19	6:55	12:38	18:22	. . .
			5.4	3.6	5.5	. . .
A	Th	20	1:09	7:52	13:56	19:39
			1.7	5.8	3.0	5.8
	F	21	2:11	8:34	14:44	20:39
			1.6	6.3	2.2	6.3
E	S	22	2:52	9:08	15:15	21:22
			1.4	6.7	1.5	6.8
	S	23	3:25	9:36	15:44	21:57
			1.8	7.0	1.0	7.2
○	M	24	3:56	10:02	16:12	22:32
			1.8	7.3	0.5	7.4
	Tu	25	4:24	10:30	16:40	23:05
			1.5	7.6	0.0	7.5
	W	26	4:52	10:56	17:11	23:40
			1.3	7.8	—0.4	7.5
	Th	27	5:23	11:26	17:42	. . .
			1.5	7.8	—0.6	. . .
	F	28	0:16	5:52	11:57	18:19
			7.4	1.7	7.8	—0.7
N	S	29	0:55	6:29	12:32	18:58
			7.1	2.0	7.6	—0.5
	S	30	1:39	7:07	13:12	19:43
			6.7	2.5	7.4	—0.2
	M	31	2:30	7:54	14:00	20:37
			6.3	2.9	6.9	0.3

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	NOVEMBER.					
☾	Tu	1	3:32	8:54	15:00	21:42
			5.8	3.4	6.3	0.8
	W	2	4:47	10:14	16:21	23:02
			5.6	3.5	6.0	1.3
	Th	3	6:11	11:56	18:00	. . .
			5.7	3.2	6.0	. . .
	F	4	0:32	7:22	13:21	19:26
			1.3	6.2	2.5	6.4
E P	S	5	1:47	8:12	14:29	20:32
			1.3	6.7	1.6	7.0
	S	6	2:44	8:56	15:07	21:30
			1.2	7.1	0.7	7.6
●	M	7	3:33	9:34	15:49	22:18
			1.1	7.5	—0.1	7.9
	Tu	8	4:18	10:12	16:28	23:00
			1.2	7.8	—0.8	8.0
	W	9	4:50	10:46	17:07	23:46
			1.4	8.0	—1.2	7.8
	Th	10	5:24	11:21	17:45	. . .
			1.7	8.1	—1.3	. . .
S	F	11	0:26	5:58	11:58	18:25
			7.4	2.1	8.0	—1.0
	S	12	1:07	6:32	12:32	19:05
			7.0	2.5	7.7	—0.6
	S	13	1:50	7:12	13:13	19:48
			6.5	2.8	7.3	—0.1
	M	14	2:40	7:57	14:00	20:35
			6.0	3.1	6.6	0.6
☽	Tu	15	3:32	8:51	14:56	21:30
			5.7	3.4	6.0	1.2
	W	16	4:34	10:07	16:06	22:32
			5.5	3.5	5.5	1.8
A	Th	17	5:41	11:39	17:32	23:48
			5.5	3.4	5.3	2.1
E	F	18	6:39	13:00	18:57	. . .
			5.9	2.8	5.4	. . .
	S	19	0:58	7:28	13:54	20:01
			2.3	6.2	2.2	5.8
	S	20	1:58	8:10	14:38	20:52
			2.3	6.5	1.5	6.3
	M	21	2:36	8:47	15:10	21:34
			2.1	6.9	0.8	6.6
	Tu	22	3:16	9:21	15:42	22:12
			2.0	7.3	0.2	6.8
○	W	23	3:50	9:54	16:14	22:50
			2.0	7.6	—0.4	7.1
	Th	24	4:22	10:24	16:50	23:26
			2.0	7.8	—0.8	7.2
N	F	25	4:57	10:58	17:25	. . .
			2.0	8.0	—1.1	. . .
	S	26	0:06	5:32	11:35	18:04
			7.2	2.1	8.0	—1.1
	S	27	0:45	6:11	12:14	18:44
			7.1	2.3	7.9	—1.0
	M	28	1:30	6:54	12:57	19:30
			6.9	2.5	7.6	—0.6
	Tu	29	2:20	7:45	13:48	20:22
			6.6	2.8	7.1	0.0
☾	W	30	3:14	8:46	14:50	21:22
			6.3	3.0	6.6	0.6

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	DECEMBER.					
	Th	1	4:16	10:00	16:06	22:31
			6.1	3.0	6.1	1.2
E	F	2	5:26	11:26	17:38	23:51
			6.2	2.6	6.0	1.7
P	S	3	6:31	12:45	19:06	. . .
			6.3	2.0	6.2	. . .
	S	4	1:11	7:27	13:53	20:20
			1.9	6.6	1.1	6.7
	M	5	2:17	8:18	14:50	21:21
			2.0	7.0	0.3	7.1
	Tu	6	3:11	9:04	15:36	22:14
			1.8	7.5	—0.5	7.3
●	W	7	3:55	9:44	16:20	23:00
			2.2	7.8	—1.1	7.3
S	Th	8	4:33	10:23	16:59	23:40
			2.3	8.0	—1.3	7.3
	F	9	5:07	11:00	17:36	. . .
			2.4	8.1	—1.3	. . .
	S	10	0:20	5:42	11:37	18:13
			7.0	2.6	8.0	—1.1
	S	11	0:57	6:17	12:16	18:48
			6.8	2.6	7.8	—0.7
	M	12	1:33	6:55	12:55	19:27
			6.5	2.7	7.3	—0.2
	Tu	13	2:12	7:36	13:38	20:07
			6.3	2.8	6.8	0.3
	W	14	2:55	8:25	14:27	20:50
			6.2	2.9	6.2	1.1
☽ A	Th	15	3:39	9:24	15:24	21:40
			6.1	3.0	5.6	1.7
E	F	16	4:29	10:32	16:35	22:35
			6.0	3.0	5.2	2.3
	S	17	5:24	11:45	17:57	23:39
			6.1	2.7	5.2	2.7
	S	18	6:19	12:52	19:15	. . .
			6.2	2.2	5.3	. . .
	M	19	0:43	7:10	13:47	20:18
			2.9	6.4	1.6	5.6
	Tu	20	1:43	7:57	14:35	21:11
			2.9	6.8	0.8	6.0
	W	21	2:35	8:40	15:16	21:56
			2.8	7.1	0.1	6.4
	Th	22	3:19	9:22	15:54	22:37
			2.7	7.5	—0.6	6.7
○ N	F	23	4:00	10:00	16:33	23:17
			2.6	7.9	—1.0	6.9
	S	24	4:39	10:40	17:12	23:54
			2.4	8.1	—1.3	7.1
	S	25	5:29	11:20	17:53	. . .
			2.4	8.2	—1.4	. . .
	M	26	0:35	6:00	12:02	18:35
			7.1	2.2	8.2	—1.2
P	Tu	27	1:17	6:45	12:48	19:19
			7.1	2.2	7.9	—0.8
	W	28	2:01	7:34	13:40	20:06
			7.0	2.2	7.5	—0.2
E ☾	Th	29	2:48	8:30	14:38	21:00
			6.8	2.2	6.9	0.6
	F	30	3:40	9:34	15:49	22:03
			6.6	2.2	6.3	1.4
	S	31	4:40	10:50	17:12	23:12
			6.5	2.0	6.0	2.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 4.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Singapore Mean Local Civil, for the meridian 103° 51′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator: N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	8:37 3.1	16:55 0.8		
N	S	2	9:12 3.2	17:28 0.6		
○	S	3	9:46 3.3	18:08 0.4		
P	M	4	10:18 3.3	18:41 0.4		
	Tu	5	10:50 3.1	19:15 0.5		
	W	6	11:20 3.0	19:50 0.6		
	Th	7	11:47 2.7	20:11 0.8		
E	F	8	12:00 2.4	20:33 1.1		
	S	9	12:10 2.0	21:02 1.1		
☾	S	10	6:10 1.9	21:26 1.3		
	M	11	6:35 2.2	21:16 1.3		
	Tu	12	7:03 2.4	17:30 1.2		
	W	13	7:34 2.6	17:31 1.0		
	Th	14	8:03 2.8	17:47 0.8		
S	F	15	8:32 3.0	17:49 0.8		
	S	16	9:00 3.0	17:54 0.8		
●	S	17	9:27 3.0	18:05 0.8		
	M	18	9:54 3.0	18:21 0.8		
	Tu	19	10:12 2.8	18:40 0.7		
A	W	20	10:27 2.7	18:52 0.8		
	Th	21	10:40 2.6	19:07 0.9		
	F	22	10:54 2.4	19:32 0.9		
E	S	23	10:59 2.2	19:54 1.0		
	S	24	10:47 2.0	20:24 1.1		
	M	25	5:50 1.9	20:19 1.2		
☽	Tu	26	5:55 2.1	20:00 1.3		
	W	27	6:22 2.4	16:30 1.3		
	Th	28	6:57 2.7	15:48 1.2		
	F	29	7:36 2.9	16:00 0.8		
N	S	30	8:15 3.1	16:26 0.6		
	S	31	8:58 3.2	16:55 0.5		

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	9:35 3.3	17:27 0.5		
P	Tu	2	10:09 3.1	17:57 0.6		
	W	3	10:42 2.9	18:24 0.7		
	Th	4	11:10 2.7	18:42 1.0		
E	F	5	11:30 2.3	19:00 1.0		
	S	6	2:16 1.6	19:24 1.3		
	S	7	2:49 1.8	19:22 1.3		
☾	M	8	4:00 2.0	18:25 1.8		
	Tu	9	5:25 2.2	17:15 1.1		
	W	10	6:21 2.3	16:28 0.9		
	Th	11	7:05 2.5	16:40 0.8		
S	F	12	7:40 2.7	16:46 0.8		
	S	13	8:12 2.8	16:47 0.8		
	S	14	8:42 2.8	16:54 0.8		
	M	15	9:11 2.8	17:06 0.8		
A	Tu	16	9:37 2.7	17:20 0.8		
●	W	17	9:52 2.6	17:28 0.8		
	Th	18	10:06 2.4	17:41 0.9		
E	F	19	0:06 1.8	3:45 1.7	10:28 2.3	18:01 1.0
	S	20	0:42 1.8	5:00 1.7	10:55 2.0	18:22 1.1
	S	21	1:19 1.9	6:10 1.7	12:03 1.9	18:30 1.3
	M	22	1:52 2.0	8:30 1.7	12:55 1.8	19:07 1.4
	Tu	23	2:56 2.1	12:30 1.7		
☽	W	24	4:07 2.2	15:51 1.3		
	Th	25	5:20 2.4	14:40 1.1		
N	F	26	6:18 2.6	14:50 0.8		
	S	27	7:10 2.8	15:12 0.6		
	S	28	7:54 2.9	15:38 0.5	23:02 1.9	
	M	29	0:52 1.6	8:34 2.9	16:05 0.6	22:50 1.8

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:50 1.4	9:12 2.9	16:30 0.7	22:40 1.7
○	W	2	2:55 1.4	9:48 2.7	16:52 0.9	22:52 1.7
E	Th	3	3:47 1.5	10:20 2.4	17:10 1.0	23:16 1.8
	F	4	4:44 1.7	10:48 2.1	17:25 1.2	23:49 2.0
	S	5	5:27 1.5	11:26 1.8	17:40 1.4	
	S	6	0:18 2.1	6:40 1.7	11:32 1.8	17:37 1.4
	M	7	1:07 2.2	16:28 1.4		
	Tu	8	2:07 2.2	15:55 1.2		
☾	W	9	3:31 2.3	15:30 0.9		
S	Th	10	4:56 2.3	15:18 0.9		
	F	11	6:05 2.4	15:07 0.9		
	S	12	6:58 2.4	15:17 0.9		
	S	13	7:42 2.3	15:26 0.8	23:19 1.7	
A	M	14	0:48 1.6	8:18 2.4	15:37 0.9	22:54 1.8
	Tu	15	2:03 1.7	8:45 2.3	15:49 0.9	22:23 1.8
	W	16	2:58 1.7	9:07 2.2	15:56 1.0	22:26 1.8
● E	Th	17	3:35 1.7	9:27 2.0	16:17 1.0	22:45 1.8
	F	18	4:03 1.7	9:59 1.8	16:39 1.2	23:00 2.0
	S	19	4:45 1.6	10:34 1.8	16:46 1.3	23:26 2.1
	S	20	5:41 1.6	11:00 1.7	17:02 1.4	23:58 2.2
	M	21	6:50 1.7	11:50 1.8	16:52 1.4	
	Tu	22	0:35 2.2	8:40 1.5		
	W	23	1:28 2.3	11:30 1.3		
N	Th	24	2:48 2.4	12:30 1.1		
☽	F	25	4:20 2.4	13:13 0.8		
	S	26	5:36 2.5	13:47 0.7		
	S	27	6:38 2.5	14:15 0.6		
	M	28	7:27 2.5	14:40 0.7	21:24 1.7	
	Tu	29	1:47 1.6	8:11 2.5	15:02 0.7	21:32 1.8
P	W	30	2:47 1.6	8:52 2.3	15:19 1.0	21:37 2.0
E ○	Th	31	3:32 1.5	9:32 2.0	15:50 1.2	22:03 2.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.8 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Batavia Mean Local Civil for the meridian 106° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	4:07 1.3	10:05 1.9	16:10 1.3	22:33 2.3
	S	2	5:04 1.4	10:38 1.7	16:17 1.4	23:05 2.4
	S	3	6:08 1.5	11:09 1.7	16:02 1.4	23:40 2.5
	M	4	7:30 1.4	11:42 1.6	15:06 1.2	. . .
	Tu	5	0:18 2.5	10:40 1.4	. . .	. . .
S	W	6	0:59 2.5	12:27 1.0	. . .	. . .
	Th	7	1:55 2.4	13:02 1.0	. . .	. . .
☾	F	8	3:36 2.3	13:28 0.9	. . .	. . .
	S	9	5:09 2.1	13:40 0.8	. . .	. . .
	S	10	6:12 2.1	13:55 0.9	. . .	. . .
A	M	11	6:48 2.0	14:18 0.9	. . .	. . .
	Tu	12	7:36 1.9	14:15 0.9	21:02 1.9	. . .
	W	13	2:56 1.7	8:05 1.8	14:46 1.0	21:26 2.1
E	Th	14	3:32 1.7	8:54 1.8	15:05 1.1	21:36 2.2
	F	15	3:58 1.6	9:28 1.7	15:13 1.3	22:02 2.4
●	S	16	4:38 1.5	10:03 1.7	15:33 1.4	22:28 2.4
	S	17	5:31 1.4	10:35 1.7	15:40 1.4	22:56 2.5
	M	18	6:30 1.4	11:48 1.7	15:20 1.4	23:26 2.6
	Tu	19	7:42 1.2	. . .	. . .	. . .
	W	20	0:00 2.7	9:08 0:9	. . .	. . .
N	Th	21	0:37 2.7	10:35 0.8	. . .	. . .
	F	22	1:28 2.6	11:25 0.8	. . .	. . .
☽	S	23	2:47 2.5	12:08 0.6	. . .	. . .
	S	24	4:24 2.2	12:45 0.7	. . .	. . .
	M	25	5:42 2.2	13:10 0.8	20:30 1.9	. . .
	Tu	26	0:58 1.7	6:47 2.1	13:30 0.9	20:39 2.0
P E	W	27	2:24 1.7	7:47 1.8	14:10 1.1	20:48 2.2
	Th	28	3:07 1.5	8:40 1.7	14:22 1.3	21:04 2.4
	F	29	3:52 1.4	9:20 1.7	14:28 1.3	21:35 2.6
○	S	30	4:50 1.3	10:05 1.7	14:32 1.3	22:06 2.8

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	5:47 1.1	22:46 2.8	. . .	. . .
	M	2	6:58 1.1	23:11 2.8	. . .	. . .
	Tu	3	8:25 1.0	23:50 2.8	. . .	. . .
S	W	4	9:42 0.9	23:48 2.7	. . .	. . .
	Th	5	10:28 0.9	. . .	. . .	. . .
	F	6	0:02 2.5	11:22 0.8	. . .	. . .
☾	S	7	0:27 2.4	11:50 0.8	. . .	. . .
A	S	8	0:23 2.2	12:18 0.9	22:00 2.0	. . .
	M	9	12:27 0.9	21:00 1.9	. . .	. . .
	Tu	10	12:56 1.0	20:40 2.0	. . .	. . .
E	W	11	13:31 1.0	20:48 2.3	. . .	. . .
	Th	12	3:45 1.7	7:45 1.8	13:45 1.1	20:55 2.5
	F	13	4:00 1.6	8:47 1.7	13:51 1.2	21:14 2.6
	S	14	4:35 1.4	9:33 1.6	14:03 1.2	21:40 2.8
●	S	15	5:21 1.3	11:30 1.4	14:16 1.2	22:10 2.9
	M	16	6:11 0.9	22:39 2.9	. . .	. . .
	Tu	17	7:11 0.8	23:10 3.0	. . .	. . .
N	W	18	7:57 0.7	23:40 3.0	. . .	. . .
	Th	19	8:54 0.6	. . .	. . .	. . .
	F	20	0:18 2.9	9:54 0.6	. . .	. . .
	S	21	1:00 2.8	10:30 0.6	. . .	. . .
☽	S	22	1:42 2.5	11:07 0.7	. . .	. . .
P	M	23	2:32 2.2	11:36 0.8	. . .	. . .
E	Tu	24	2:50 1.9	12:12 1.0	. . .	. . .
	W	25	3:10 1.8	12:43 1.1	20:45 2.3	. . .
	Th	26	3:30 1.6	20:20 2.7	. . .	. . .
	F	27	4:07 1.4	20:48 2.8	. . .	. . .
	S	28	5:04 1.2	21:20 3.0	. . .	. . .
○	S	29	5:52 1.0	21:52 3.1	. . .	. . .
	M	30	6:44 0.9	22:23 3.2	. . .	. . .
S	Tu	31	7:30 0.8	22:54 3.1	. . .	. . .

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	8:08 0.8	23:16 2.9	. . .	. . .
	Th	2	8:45 0.7	23:30 2.8	. . .	. . .
	F	3	9:24 0.7	23:39 2.6	. . .	. . .
	S	4	9:48 0.7	23:28 2.5	. . .	. . .
A	S	5	10:12 0.8	23:38 2.3	. . .	. . .
☾	M	6	10:32 0.9	21:53 2.2	. . .	. . .
E	Tu	7	11:06 0.9	20:20 2.2	. . .	. . .
	W	8	11:50 1.0	20:08 2.3	. . .	. . .
	Th	9	12:05 1.1	20:14 2.5	. . .	. . .
	F	10	12:14 1.1	20:25 2.7	. . .	. . .
	S	11	12:23 1.2	20:45 2.9	. . .	. . .
	S	12	4:58 1.1	21:12 3.1	. . .	. . .
	M	13	5:30 0.8	21:45 3.2	. . .	. . .
● N	Tu	14	6:07 0.6	22:17 3.2	. . .	. . .
	W	15	6:48 0.5	22:47 3.2	. . .	. . .
	Th	16	7:27 0.4	23:20 3.2	. . .	. . .
P	F	17	8:09 0.4	23:50 2.9	. . .	. . .
	S	18	8:47 0.5	. . .	. . .	. . .
	S	19	0:18 2.7	9:18 0.7	. . .	. . .
☽	M	20	0:50 2.8	9:50 0.8	21:32 1.9	. . .
E	Tu	21	10:17 1.0	18:57 2.0	. . .	. . .
	W	22	10:57 1.2	19:11 2.3	. . .	. . .
	Th	23	11:06 1.2	19:35 2.5	. . .	. . .
	F	24	5:12 1.3	20:07 2.8	. . .	. . .
	S	25	5:30 1.1	20:32 3.0	. . .	. . .
	S	26	5:46 0.9	21:03 3.1	. . .	. . .
S	M	27	6:07 0.9	21:32 3.2	. . .	. . .
○	Tu	28	6:30 0.7	22:04 3.2	. . .	. . .
	W	29	6:55 0.7	22:29 3.0	. . .	. . .
	Th	30	7:20 0.8	22:43 2.9	. . .	. . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.8 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Batavia Mean Local Civil for the meridian 106° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	7:38	23:00		
			0.7	2.7		
	S	2	7:57	23:02		
			0.8	2.6		
A	S	3	8:10	23:00		
			0.9	2.4		
	M	4	8:35	22:30		
			0.9	2.2		
E	Tu	5	9:09	21:34		
			0.9	2.1		
☾	W	6	9:40	19:07		
			1.0	2.1		
	Th	7	9:51	19:12		
			1.2	2.3		
	F	8	10:04	19:26		
			1.2	2.5		
	S	9	5:07	19:52		
			1.3	2.8		
	S	10	4:37	20:22		
			1.1	3.0		
	M	11	4:45	20:55		
			0.8	3.2		
N	Tu	12	5:12	21:30		
			0.6	3.3		
●	W	13	5:43	22:05		
			0.5	3.3		
	Th	14	6:16	22:37		
			0.4	3.2		
P	F	15	6:50	23:07		
			0.5	3.0		
	S	16	7:21	23:37		
			0.6	2.8		
	S	17	7:44	23:54		
			0.8	2.4		
E	M	18	8:09			
			1.0			
	Tu	19	0:04	8:35	17:10	
			2.1	1.1	1.8	
☽	W	20	9:00	17:50		
			1.3	2.0		
	Th	21	9:07	18:32		
			1.3	2.3		
	F	22	5:12	19:08		
			1.2	2.6		
	S	23	5:04	19:36		
			0.9	2.8		
	S	24	5:02	20:08		
			0.9	3.0		
S	M	25	5:10	20:39		
			0.8	3.0		
	Tu	26	5:25	21:12		
			0.8	3.1		
○	W	27	5:38	21:40		
			0.7	2.9		
	Th	28	5:54	22:00		
			0.7	2.8		
	F	29	6:13	22:15		
			0.8	2.7		
	S	30	6:25	22:31		
			0.8	2.5		
A	S	31	6:37	22:43		
			1.0	2.3		

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	6:56	23:00		
			0.9	2.2		
	Tu	2	7:31	22:45		
			1.0	1.9		
	W	3	7:48	22:00		
			1.2	1.7		
☾	Th	4	7:33	17:52		
			1.3	2.1		
	F	5	7:25	18:16		
			1.3	2.3		
	S	6	5:00	18:49		
			1.2	2.6		
	S	7	3:57	19:25		
			1.1	2.8		
N	M	8	3:50	20:07		
			0.9	3.0		
	Tu	9	4:15	20:42		
			0.7	3.1		
	W	10	4:39	21:22		
			0.6	3.2		
●	Th	11	5:07	21:57		
			0.5	3.1		
P	F	12	5:38	22:30		
			0.6	2.9		
	S	13	6:02	23:00		
			0.7	2.6		
E	S	14	6:22	12:18	16:39	23:30
			0.9	1.7	1.6	2.3
	M	15	6:37	13:12	17:52	23:51
			1.1	1.7	1.6	1.9
•	Tu	16	7:00	13:55		
			1.3	1.9		
	W	17	6:43	14:43		
			1.4	2.0		
☽	Th	18	6:07	16:12		
			1.4	2.2		
	F	19	4:11	17:28		
			1.2	2.3		
	S	20	3:56	18:26		
			0.9	2.5		
S	S	21	4:05	19:12		
			0.9	2.7		
	M	22	4:08	19:38		
			0.8	2.7		
	Tu	23	4:16	20:24		
			0.8	2.7		
	W	24	4:25	20:57		
			0.8	2.7		
	Th	25	4:38	21:22		
			0.8	2.5		
○	F	26	4:54	21:41		
			0.8	2.4		
A	S	27	5:00	21:52		
			0.9	2.3		
E	S	28	5:11	22:13		
			1.0	2.1		
	M	29	5:29	12:12	16:58	22:47
			1.1	1.8	1.7	1.8
	Tu	30	5:48	12:32		
			1.2	1.9		
	W	31	5:42	13:05		
			1.3	2.0		

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	5:44	14:00		
			1.4	2.1		
	F	2	4:44	15:12		
			1.4	2.2		
☾	S	3	4:07	16:35		
			1.2	2.3		
	S	4	1:57	17:41		
			1.0	2.5		
N	M	5	2:10	18:35		
			0.9	2.7		
	Tu	6	2:40	19:36		
			0.7	2.7		
	W	7	3:19	20:20		
			0.6	2.8		
	Th	8	3:44	21:00		
			0.6	2.7		
	F	9	4:08	10:24	14:57	21:36
			0.7	1.8	1.6	2.5
P	S	10	4:30	10:34	15:51	22:10
●			0.8	1.7	1.6	2.3
E	S	11	4:46	10:59	16:40	22:45
			1.0	2.0	1.5	2.0
	M	12	5:10	11:24	17:27	23:20
			1.3	2.0	1.4	1.8
	Tu	13	5:31	12:00	18:34	23:37
			1.4	2.1	1.6	1.7
	W	14	5:27	12:44		
			1.4	2.2		
	Th	15	4:42	13:35		
			1.4	2.3		
☽	F	16	3:15	14:45		
			1.2	2.4		
S	S	17	2:55	16:17		
			1.0	2.3		
	S	18	2:36	17:39		
			0.9	2.3		
	M	19	2:46	18:36		
			0.8	2.3		
	Tu	20	2:52	19:33		
			0.8	2.3		
	W	21	3:15	20:12		
			0.8	2.2		
	Th	22	3:22	20:41		
			0.9	2.1		
A	F	23	3:30	10:05	15:10	21:04
			1.0	1.8	1.7	2.0
	S	24	3:45	10:20	15:57	21:27
			1.0	1.8	1.7	1.9
☾	S	25	4:10	10:32	16:15	22:16
E			1.1	2.1	1.7	1.8
	M	26	4:18	10:50	16:55	22:28
			1.2	2.2	1.6	1.7
	Tu	27	4:31	11:15	17:50	22:57
			1.3	2.2	1.6	1.7
	W	28	4:40	11:47	18:57	23:45
			1.3	2.3	1.5	1.7
	Th	29	4:22	12:22	20:33	
			1.3	2.3	1.5	
	F	30	13:02	23:02		
			2.4	1.7		

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.8 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Batavia Mean Local Civil, for the meridian 106° 50′ E; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	OCTOBER.					
	S	1	13:37	23:51		
			2.4	0.9		
N ☾	S	2	15:02			
			2.4			
	M	3	0:40	16:43		
			0.8	2.4		
	Tu	4	1:16	18:00		
			0.7	2.4		
	W	5	1:45	9:40	12:45	18:50
			0.6	1.8	1.7	2.4
	Th	6	2:19	9:02	13:44	19:55
			0.7	1.8	1.7	2.3
	F	7	2:40	9:08	14:50	20:38
			0.8	1.9	1.7	2.1
P E	S	8	3:07	9:30	15:27	21:30
			1.1	2.1	1.5	1.9
●	S	9	3:34	9:53	16:09	22:02
			1.2	2.3	1.3	1.8
	M	10	3:50	10:23	17:05	22:38
			1.3	2.4	1.3	1.7
	Tu	11	3:59	10:57	18:07	23:10
			1.3	2.6	1.3	1.6
	W	12	3:42	11:25		
			1.3	2.6		
	Th	13	2:59	11:52		
			1.2	2.6		
	F	14	2:10	12:30		
			1.1	2.6		
S	S	15	2:00	13:10		
			0.9	2.5		
☽	S	16	0:27	13:57		
			0.9	2.3		
	M	17	1:00	15:47		
			0.8	2.2		
	Tu	18	1:20	10:27		
			0.8	2.0		
	W	19	1:38	10:07		
			0.8	1.9		
A	Th	20	1:48	9:27		
			1.0	1.9		
	F	21	2:02	9:16		
			1.0	2.1		
F	S	22	2:32	9:23		
			1.1	2.3		
	S	23	2:45	9:32		
			1.2	2.3		
○	M	24	2:47	9:41	16:48	21:50
			1.2	2.5	1.5	1.7
	Tu	25	3:00	10:10	17:27	22:10
			1.3	2.6	1.3	1.7
	W	26	2:50	10:37	18:24	
			1.4	2.6	1.2	
	Th	27	11:06	19:32		
			2.7	1.0		
	F	28	11:30	20:42		
			2.8	0.9		
N	S	29	12:06	21:50		
			2.8	0.8		
	S	30	12:50	22:47		
			2.7	0.6		
	M	31	12:42	23:32		
			2.5	0.5		

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	NOVEMBER.					
☾	Tu	1	15:08			
			2.4			
	W	2	0:07	16:46		
			0.7	2.2		
	Th	3	0:37	18:00		
			0.8	2.0		
	F	4	1:05	8:11	14:15	19:17
			0.9	2.0	1.7	1.8
E P	S	5	1:42	8:22	14:52	20:22
			1.0	2.3	1.6	1.7
	S	6	1:56	8:50	15:45	21:08
			1.2	2.5	1.4	1.7
●	M	7	2:02	9:18	16:41	22:24
			1.2	2.7	1.2	1.6
	Tu	8	2:11	9:50	17:42	
			1.2	2.9	1.0	
	W	9	10:24	18:46		
			3.0	0.9		
	Th	10	10:58	19:50		
			3.0	0.8		
S	F	11	11:30	21:10		
			2.9	0.8		
	S	12	11:56	22:06		
			2.8	0.8		
	S	13	12:12	22:40		
			2.7	0.7		
	M	14	12:22	23:12		
			2.5	0.8		
☽	Tu	15	11:42	23:36		
			2.3	0.9		
	W	16	9:55	23:47		
			2.2	0.9		
A	Th	17	9:07			
			2.1			
E	F	18	0:22	8:36		
			1.0	2.2		
	S	19	0:56	8:36		
			1.1	2.4		
	S	20	1:00	8:42		
			1.2	2.5		
	M	21	1:08	8:57		
			1.2	2.7		
	Tu	22	1:25	9:22		
			1.2	2.8		
○	W	23	1:39	9:50		
			1.2	2.9		
	Th	24	1:34	10:20		
			1.1	3.0		
N	F	25	1:00	10:46	19:33	
			1.0	3.0	0.8	
	S	26	11:20	20:23		
			3.0	0.5		
	S	27	11:42	21:07		
			3.0	0.5		
	M	28	12:25	21:48		
			2.8	0.5		
	Tu	29	13:00	22:25		
			2.6	0.7		
☾	W	30	13:30	22:54		
			2.3	0.8		

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	DECEMBER.					
	Th	1	8:11	23:28		
			2.0	0.9		
E	F	2	7:27			
			2.1			
P	S	3	0:07	7:39	15:16	
			1.0	2.3	1.6	
	S	4	8:05	16:00		
			2.6	1.5		
	M	5	8:30	16:43		
			2.8	1.3		
	Tu	6	9:04	17:33		
			3.0	1.0		
●	W	7	9:37	18:21		
			3.2	0.8		
S	Th	8	10:08	19:05		
			3.2	0.7		
	F	9	10:39	19:42		
			3.1	0.6		
	S	10	11:07	20:17		
			3.0	0.7		
	S	11	11:25	20:48		
			2.8	0.7		
	M	12	11:30	21:14		
			2.6	0.7		
	Tu	13	11:24	21:30		
			2.2	0.8		
	W	14	11:00	21:52		
			1.9	0.8		
☽ A	Th	15	9:57	22:27		
			1.7	0.9		
E	F	16	8:15	23:05		
			1.6	0.9		
	S	17	7:58	23:10		
			1.7	0.8		
	S	18	8:00	23:25		
			1.8	0.7		
	M	19	8:12	17:49		
			1.9	0.5		
	Tu	20	8:38	17:12		
			2.0	0.3		
	W	21	9:00	17:30		
			2.1	0.0		
N	Th	22	9:34	18:00		
			2.2	—0.2		
○	F	23	10:03	18:35		
			2.3	—0.4		
	S	24	10:33	19:08		
			2.3	—0.5		
	S	25	11:02	19:45		
			2.2	—0.4		
	M	26	11:35	20:19		
			2.1	—0.3		
P	Tu	27	12:00	20:46		
			1.9	—0.2		
	W	28	12:23	21:10		
			1.5	0.0		
E ☾	Th	29	12:31	21:45		
			1.1	0.1		
	F	30	6:32	22:20		
			0.9	0.3		
	S	31	6:45	22:15		
			1.3	0.4		

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.8 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case substract it.

The time used is Batavia Mean Local Civil, for the meridian 106° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:55 0.4	20:02 3.3		
N	S	2	5:20 0.0	20:50 3.5		
○	S	3	5:46 −0.3	21:40 3.8		
P	M	4	6:16 −0.6	22:25 4.0		
	Tu	5	6:44 −0.6	13:50 1.3	15:42 1.3	23:21 4.0
	W	6	7:19 −0.5	13:59 1.4	16:47 1.3	
	Th	7	0:05 4.0	7:44 −0.3	14:12 1.5	17:48 1.2
E	F	8	0:49 3.7	8:12 −0.1	14:31 1.7	18:49 1.2
	S	9	1:31 3.3	8:37 0.1	14:50 1.9	19:55 1.1
☾	S	10	2:16 2.7	9:05 0.4	15:12 2.4	21:08 1.1
	M	11	3:12 2.1	9:30 0.7	15:51 2.6	22:17 1.2
	Tu	12	4:15 1.6	9:55 0.9	16:39 2.8	23:47 1.2
	W	13	5:40 1.3	10:11 1.0	17:43 3.0	
	Th	14	2:12 1.0	18:53 3.3		
S	F	15	3:59 0.4	20:01 3.5		
	S	16	4:49 0.1	21:04 3.7		
●	S	17	5:24 −0.1	12:05 1.3	14:18 1.3	21:58 3.8
	M	18	5:56 −0.3	12:32 1.4	15:38 1.4	22:44 3.8
	Tu	19	6:25 −0.4	12:57 1.6	16:39 1.5	23:27 3.8
A	W	20	6:54 −0.4	13:27 1.7	17:33 1.4	
	Th	21	0:06 3.7	7:21 −0.4	13:56 1.8	18:19 1.3
	F	22	0:43 3.4	7:46 −0.2	14:20 2.0	19:06 1.3
E	S	23	1:22 3.1	8:11 0.0	14:44 2.1	19:55 1.2
	S	24	2:00 2.7	8:34 0.3	15:04 2.2	20:45 1.2
	M	25	2:40 2.2	9:08 0.6	15:29 2.4	21:34 1.1
☽	Tu	26	3:13 1.8	9:44 0.9	15:55 2.5	22:45 1.0
	W	27	3:40 1.6	10:24 1.2	16:30 2.6	
	Th	28	0:15 0.8	17:17 2.8		
	F	29	3:00 0.5	18:20 3.1		
N	S	30	5:00 0.2	19:35 3.3		
	S	31	5:30 0.0	20:47 3.5		

FEBRUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	M	1	5:54 −0.1	21:48 3.7		
○ P	Tu	2	6:14 −0.2	11:05 1.3	15:05 1.3	22:42 3.8
	W	3	6:34 −0.2	12:08 1.4	16:24 1.2	23:32 3.8
	Th	4	6:54 −0.1	12:47 1.6	17:26 1.0	
E	F	5	0:19 3.6	7:14 0.1	13:18 1.8	18:24 0.9
	S	6	1:04 3.3	7:38 0.3	13:45 2.2	19:21 0.7
	S	7	1:46 2.9	8:05 0.4	14:12 2.5	20:21 0.7
☾	M	8	2:36 2.4	8:38 0.6	14:45 2.8	21:14 0.7
	Tu	9	3:24 1.9	8:57 0.8	15:21 3.0	22:23 0.8
	W	10	4:34 1.6	9:14 0.9	16:11 3.1	23:53 0.9
	Th	11	5:55 1.1	9:45 1.1	17:14 3.2	
S	F	12	2:00 0.7	18:26 3.2		
	S	13	3:24 0.4	19:45 3.3		
	S	14	4:11 0.1	10:05 1.3	13:49 1.4	20:48 3.4
	M	15	4:46 0.1	11:00 1.4	15:29 1.5	21:52 3.4
A ●	Tu	16	5:18 0.1	11:45 1.6	16:35 1.5	22:45 3.4
	W	17	5:47 0.0	12:20 1.7	17:27 1.4	23:32 3.4
	Th	18	6:13 0.0	12:45 1.9	18:10 1.3	
E	F	19	0:20 3.2	6:38 0.1	13:01 2.0	18:52 1.1
	S	20	1:05 3.0	7:10 0.3	13:30 2.3	19:35 1.0
	S	21	1:48 2.7	7:33 0.5	13:50 2.4	20:08 0.9
	M	22	2:21 2.3	7:55 0.8	14:05 2.4	20:43 0.8
	Tu	23	3:06 2.0	8:14 1.0	14:22 2.6	21:32 0.8
☽	W	24	4:09 1.6	8:33 1.6	14:42 2.7	22:31 0.9
	Th	25	15:09 2.9	23:45 0.9		
N	F	26	15:48 3.1			
	S	27	1:32 0.9	16:46 3.1		
	S	28	3:21 0.5	18:10 3.2		
	M	29	4:10 0.3	19:51 3.2		

MARCH.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	4:39 0.3	9:48 1.3	14:24 1.4	21:20 3.3
○	W	2	5:01 0.4	10:42 1.4	15:57 1.2	22:30 3.3
E	Th	3	5:21 0.5	11:35 1.6	17:04 0.9	23:25 3.2
	F	4	5:45 0.6	11:59 2.0	17:59 0.6	
	S	5	0:18 3.0	6:25 0.6	12:30 2.4	18:44 0.4
	S	6	1:11 2.8	6:47 0.7	12:56 2.7	19:35 0.3
	M	7	2:05 2.4	7:09 0.8	13:28 3.0	20:30 0.2
	Tu	8	3:05 2.0	7:31 0.9	14:02 3.3	21:29 0.3
☾	W	9	4:03 1.6	8:00 0.9	14:45 3.4	22:30 0.4
S	Th	10	5:15 1.4	8:44 1.1	15:30 3.3	23:40 0.5
	F	11	16:23 3.2			
	S	12	0:58 0.6	17:29 3.1		
	S	13	2:14 0.6	18:48 2.9		
A	M	14	3:12 0.4	9:55 1.5	14:24 1.5	20:12 2.9
	Tu	15	3:55 0.4	10:55 1.7	15:50 1.5	21:29 2.9
	W	16	4:28 0.4	11:21 1.8	16:10 1.3	22:38 2.9
● E	Th	17	5:04 0.4	11:39 2.1	17:23 1.1	23:37 2.8
	F	18	5:42 0.5	11:57 2:3	18:03 0.9	
	S	19	0:24 2.6	6:07 0.7	12:20 2.4	18:39 0.7
	S	20	1:02 2.5	6:32 0.8	12:40 2.5	19:18 0.5
	M	21	1:53 2.3	6:58 1.0	13:01 2.6	20:00 0.4
	Tu	22	2:48 1.9	7:30 1.2	13:37 2.8	20:45 0.4
	W	23	3:45 1.6	8:00 1.4	14:20 3.0	21:34 0.4
N	Th	24	14:10 3.1	22:30 0.4		
☽	F	25	14:40 3.2	23:33 0.4		
	S	26	15:20 3.2			
	S	27	0:46 0.5	16:15 3.1		
	M	28	1:58 0.6	17:31 2.9		
	Tu	29	2:51 0.7	19:20 2.7		
P	W	30	3:42 0.9	9:37 1.6	14:45 1.3	20:37 2.7
E ○	Th	31	4:18 1.0	10:18 1.8	16:00 0.9	22:27 2.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 120th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	4:53	10:54	16:50	23:24		S	1	4:04	10:28	17:54	. . .		W	1	1:22	4:17	11:19	19:06
			0.9	2.1	0.6	2.7				1.4	3.2	—0.2	. . .				1.4	1.3	4.1	—0.8
	S	2	5:21	11:33	17:37	. . .		M	2	0:39	4:38	11:12	18:42		Th	2	2:00	5:10	12:04	19:45
			1.0	2.5	0.3	. . .				1.8	1.4	3.5	—0.4				1.4	1.3	4.1	—0.8
	S	3	0:17	5:45	12:04	18:34		Tu	3	1:24	5:14	11:57	19:31		F	3	2:42	6:06	12:49	20:21
			2.5	1.0	2.9	—0.1				1.7	1.3	3.8	—0.5				1.5	1.2	3.9	—0.6
	M	4	1:11	6:10	12:36	19:27	S	W	4	2:09	5:53	12:41	20:16		S	4	3:23	7:04	13:33	20:58
			2.2	1.1	3.3	—0.2				1.7	1.3	3.9	—0.5				1.6	1.4	3.7	—0.5
	Tu	5	2:00	6:38	13:13	20:20		Th	5	2:55	6:35	13:26	21:01	A	S	5	4:06	8:05	14:18	21:32
			2.0	1.1	3.6	—0.2				1.6	1.3	3.8	—0.4				1.6	1.5	3.3	—0.2
S	W	6	2:48	7:07	13:50	21:15		F	6	3:43	7:21	14:10	21:45	☾	M	6	4:42	9:14	15:06	22:04
			1.8	1.1	3.6	—0.1				1.6	1.4	3.6	—0.3				1.8	1.5	2.8	0.0
	Th	7	3:40	7:40	14:36	22:11	☾	S	7	4:37	8:15	14:55	22:30	E	Tu	7	5:15	10:32	15:55	22:38
			1.6	1.1	3.5	0.0				1.7	1.4	3.3	0.0				1.8	1.6	2.4	0.4
☾	F	8	4:42	8:16	15:24	23:10		S	8	5:38	9:18	15:49	23:14		W	8	5:57	12:14	17:16	23:22
			1.4	1.2	3.4	0.2				1.7	1.5	2.9	0.2				2.0	1.6	1.8	0.7
	S	9	5:58	9:03	16:18	. . .	A	M	9	6:36	10:42	16:50	23:59		Th	9	6:39	13:50	19:22	23:51
			1.4	1.4	3.1	. . .				1.7	1.6	2.5	0.5				2.3	1.5	1.6	1.0
	S	10	0:16	7:27	10:06	17:22		Tu	10	7:20	12:25	18:15	. . .		F	10	7:19	15:20	20:46	. . .
			0.4	1.5	1.4	2.8				1.9	1.5	2.1	. . .				2.4	1.3	1.5	. . .
A	M	11	1:21	8:40	11:30	18:38	E	W	11	0:41	8:02	14:16	20:04		S	11	0:58	8:08	16:31	22:20
			0.5	1.7	1.5	2.6				0.8	2.1	1.5	1.8				1.3	2.6	0.8	1.4
	Tu	12	2:18	9:27	14:03	20:00		Th	12	1:30	8:45	15:17	21:31		S	12	1:18	8:58	17:16	. . .
			0.6	1.8	1.6	2.4				1.1	2.2	1.2	1.8				1.3	2.9	0.4	. . .
	W	13	3:06	9:59	15:29	21:15		F	13	2:20	9:16	16:16	22:48		M	13	0:25	1:51	9:30	17:51
			0.7	2.0	1.4	2.3				1.2	2.3	0.9	1.7				1.4	1.4	3.2	0.0
E	Th	14	3:53	10:21	16:27	22:30		S	14	3:00	9:45	17:06	23:54	●	Tu	14	1:04	2:20	10:08	18:26
			0.8	2.2	1.1	2.2				1.5	2.6	0.5	1.7	N			1.4	1.3	3.5	—0.3
	F	15	4:34	10:54	17:03	23:30	●	S	15	3:35	10:14	17:49	. . .		W	15	10:40	19:00	. . .	. . .
			1.0	2.2	0.9	2.2				1.5	2.8	0.1	. . .				3.8	—0.5	. . .	. . .
●	S	16	5:10	11:16	17:40	. . .		M	16	0:55	4:05	10:40	18:28		Th	16	11:19	19:34	. . .	. . .
			1.0	2.4	0.5	. . .				1.7	1.5	3.1	—0.2				4.0	—0.6	. . .	. . .
	S	17	0:19	5:30	11:38	18:21		Tu	17	1:51	4:22	11:12	19:06	P	F	17	11:57	20:07	. . .	. . .
			2.2	1.3	2.6	0.2				1.7	1.5	3.4	—0.4				4.0	—0.5	. . .	. . .
	M	18	1:13	5:49	12:00	19:03	N	W	18	2:45	4:44	11:45	19:45		S	18	2:40	4:50	12:39	20:38
			2.1	1.5	2.9	0.0				1.7	1.5	3.6	—0.6				1.3	1.3	3.9	—0.3
	Tu	19	2:04	6:02	12:24	19:45		Th	19	3:40	5:09	12:21	20:25		S	19	3:04	5:48	13:19	21:08
			1.9	1.4	3.1	—0.1				1.6	1.4	3.7	—0.6				1.3	1.2	3.7	0.0
	W	20	2:54	6:21	12:50	20:29		F	20	12:57	21:01	. . .	. . .	☽	M	20	3:25	6:54	14:02	21:35
			1.7	1.5	3.3	—0.2				3.7	—0.5	. . .	. . .				1.4	1.2	3.3	0.3
N	Th	21	3:45	6:38	13:21	21:15		S	21	13:28	21:20	. . .	. . .	E	Tu	21	3:50	8:07	14:48	22:00
			1.6	1.5	3.4	—0.2				3.6	—0.3	. . .	. . .				1.6	1.3	2.7	0.5
	F	22	13:55	22:04	. . .	. . .	☽	S	22	14:04	21:58	. . .	. . .		W	22	4:19	9:31	15:41	22:30
			3.4	0.0	. . .	. . .				3.3	0.0	. . .	. . .				1.9	1.3	2.1	0.8
☽	S	23	14:34	22:55	. . .	. . .	P	M	23	14:45	22:30	. . .	. . .		Th	23	5:00	10:49	16:43	23:01
			3.3	0.2	. . .	. . .				2.9	0.4	. . .	. . .				2.2	1.2	1.7	1.0
	S	24	15:20	23:47	. . .	. . .	E	Tu	24	5:34	9:38	15:59	22:51		F	24	5:46	12:33	18:30	23:25
			3.1	0.5	. . .	. . .				1.5	1.4	2.4	0.8				2.6	1.2	1.4	1.0
	M	25	16:20	. . .	. . .	. . .		W	25	5:54	11:30	17:25	23:48		S	25	6:38	14:15	20:00	23:59
			2.8	. . .	. . .	. . .				1.9	1.4	1.9	1.2				2.9	0.8	1.1	1.2
	Tu	26	0:37	7:05	10:30	17:41		Th	26	6:26	13:10	19:09	. . .		S	26	7:46	15:46	21:50	. . .
			0.8	1.5	1.4	2.4				2.1	1.2	1.7	. . .				3.3	0.2	1.1	. . .
P E	W	27	1:30	7:46	12:44	19:25		F	27	0:18	7:08	14:41	21:45	S	M	27	0:50	8:49	16:52	23:30
			0.9	1.6	1.4	2.1				1.3	2.5	0.8	1.5				1.2	3.6	—0.1	1.2
	Th	28	2:20	8:23	14:26	21:14		S	28	0:54	7:56	16:00	23:05	○	Tu	28	2:00	9:45	17:49	. . .
			1.2	1.9	1.1	2.1				1.4	3.0	0.3	1.5				1.2	3.8	—0.3	. . .
	F	29	3:00	9:10	15:48	22:45	○	S	29	1:36	8:51	16:59	. . .		W	29	0:09	3:05	10:35	18:25
			1.3	2.2	0.6	2.0				1.4	3.4	—0.1	. . .				1.3	1.3	4.0	—0.4
○	S	30	3:34	9:47	16:55	23:49		M	30	0:01	2:28	9:43	17:48		Th	30	0:48	4:07	11:21	18:59
			1.4	2.7	0.2	1.9				1.5	1.3	3.7	—0.4				1.4	1.3	4.0	—0.5
							S	Tu	31	0:45	3:20	10:31	18:27							
										1.5	1.3	3.9	—0.7							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day: a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 120th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	1:58 1.6	5:16 1.4	12:11 3.9	19:45 —0.6	
	S	2	2:31 1.7	6:15 1.4	12:52 3.7	20:16 —0.4	
A	S	3	3:06 1.8	7:12 1.4	13:35 3.3	20:45 —0.3	
	M	4	3:43 2.0	8:13 1.5	14:19 2.9	21:12 0.0	
E	Tu	5	4:07 2.2	9:15 1.5	14:59 2.4	21:35 0.3	
☾	W	6	4:40 2.3	10:26 1.5	15:40 1.9	22:09 0.6	
	Th	7	5:19 2.4	11:45 1.5	16:45 1.6	22:23 0.9	
	F	8	5:55 2.5	13:40 1.4	. . . . .	. . . . .	
	S	9	6:31 2.6	15:30 0.8	. . . . .	. . . . .	
	S	10	7:15 2.9	16:55 0.4	. . . . .	. . . . .	
	M	11	8:02 3.2	17:38 0.1	. . . . .	. . . . .	
N	Tu	12	8:52 3.4	18:05 —0.2	. . . . .	. . . . .	
●	W	13	9:40 3.7	18:30 —0.4	. . . . .	. . . . .	
	Th	14	10:27 3.8	18:55 —0.5	. . . . .	. . . . .	
P	F	15	11:13 3.9	19:20 —0.5	. . . . .	. . . . .	
	S	16	1:20 1.4	4:35 1.4	11:58 3.8	19:44 —0.3	
	S	17	1:50 1.5	5:44 1.3	12:40 3.6	20:07 0.0	
E	M	18	2:15 1.6	6:50 1.2	13:25 3.2	20:28 0.2	
	Tu	19	2:36 1.9	7:58 1.1	14:11 2.7	20:45 0.4	
☽	W	20	3:09 2.3	9:09 1.0	15:10 2.2	21:17 0.8	
	Th	21	3:43 2.5	10:10 1.0	16:47 1.6	21:45 0.9	
	F	22	4:30 2.8	11:48 1.0	18:30 1.3	22:22 0.9	
	S	23	5:25 3.1	14:25 0.7	. . . . .	. . . . .	
	S	24	6:28 3.3	16:15 0.3	. . . . .	. . . . .	
S	M	25	7:37 3.5	16:57 0.0	. . . . .	. . . . .	
	Tu	26	8:43 3.6	17:30 —0.2	. . . . .	. . . . .	
○	W	27	9:40 3.7	17:57 —0.3	. . . . .	. . . . .	
	Th	28	0:42 1.4	8:05 1.4	10:33 3.8	18:22 —0.3	
	F	29	0:55 1.6	4:23 1.4	11:20 3.7	18:48 —0.3	
	S	30	1:21 1.7	5:26 1.4	12:00 3.6	19:14 —0.2	
A	S	31	1:53 1.9	6:20 1.3	12:39 3.3	19:38 —0.1	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	2:16 2.1	7:14 1.2	13:24 2.9	20:01 0.1	
	Tu	2	2:41 2.2	8:11 1.2	14:04 2.6	20:27 0.3	
	W	3	3:10 2.3	9:05 1.2	14:45 2.1	20:55 0.7	
☾	Th	4	3:40 2.5	9:52 1.2	15:27 1.6	21:22 0.9	
	F	5	4:07 2.5	10:57 1.2	16:34 1.5	21:55 1.1	
	S	6	4:40 2.6	13:12 1.1	. . . . .	. . . . .	
	S	7	5:19 2.8	15:38 0.6	. . . . .	. . . . .	
N	M	8	6:14 3.0	16:44 0.3	. . . . .	. . . . .	
	Tu	9	7:14 3.2	17:25 0.0	. . . . .	. . . . .	
	W	10	8:18 3.4	17:46 —0.1	. . . . .	. . . . .	
●	Th	11	9:17 3.5	18:03 —0.1	. . . . .	. . . . .	
P	F	12	10:14 3.6	18:21 —0.1	. . . . .	. . . . .	
	S	13	0:35 1.5	3:47 1.3	11:04 3.6	18:39 0.1	
E	S	14	1:02 1.6	5:00 1.1	11:51 3.5	18:57 0.3	
	M	15	1:16 1.8	6:04 0.9	12:36 3.2	19:18 0.4	
	Tu	16	1:30 2.1	7:09 0.7	13:25 2.8	19:39 0.6	
	W	17	1:51 2.5	8:00 0.7	14:05 2.4	20:08 0.8	
☽	Th	18	2:26 2.7	9:01 0.6	14:58 1.9	20:24 0.9	
	F	19	3:10 3.0	10:16 0.7	16:10 1.6	20:38 1.0	
	S	20	4:00 3.2	11:54 0.7	. . . . .	. . . . .	
S	S	21	4:57 3.3	14:07 0.6	. . . . .	. . . . .	
	M	22	6:06 3.3	15:46 0.3	. . . . .	. . . . .	
	Tu	23	7:20 3.3	16:29 0.1	. . . . .	. . . . .	
	W	24	8:28 3.3	16:59 0.1	23:05 1.5	. . . . .	
	Th	25	1:45 1.4	9:29 3.3	17:21 0.1	23:53 1.6	
○	F	26	3:30 1.5	10:20 3.3	17:44 0.1	. . . . .	
A	S	27	0:15 1.8	4:39 1.3	11:06 3.3	18:10 0.2	
E	S	28	0:43 2.0	5:35 1.1	11:49 3.1	18:33 0.2	
	M	29	1:05 2.3	6:25 1.0	12:35 2.9	18:56 0.3	
	Tu	30	1:22 2.4	7:15 0.8	13:22 2.5	19:35 0.8	
	W	31	1:48 2.5	8:00 0.8	14:05 2.3	19:52 0.8	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	2:08 2.5	8:29 0.7	14:26 1.9	20:02 1.0	
	F	2	2:32 2.6	9:22 0.8	15:12 1.6	20:16 1.2	
☾	S	3	3:04 2.8	10:28 0.8	16:25 1.3	20:40 1.2	
	S	4	3:37 2.9	12:08 0.8	. . . . .	. . . . .	
N	M	5	4:18 3.0	14:55 0.6	. . . . .	. . . . .	
	Tu	6	5:18 3.1	16:18 0.4	. . . . .	. . . . .	
	W	7	6:33 3.1	16:54 0.3	. . . . .	. . . . .	
	Th	8	7:51 3.1	17:38 0.3	. . . . .	. . . . .	
	F	9	9:05 3.1	17:18 0.4	. . . . .	. . . . .	
P	S	10	2:54 1.2	10:09 3.1	17:28 0.6	23:39 1.6	
● E	S	11	4:15 1.0	11:04 3.1	17:44 0.7	23:55 2.0	
	M	12	5:20 0.7	11:52 2.9	18:10 0.7	. . . . .	
	Tu	13	0:20 2.3	6:20 0.4	12:40 2.7	18:43 0.8	
	W	14	0:49 2.7	7:04 0.2	13:30 2.3	19:04 0.9	
	Th	15	1:18 3.0	8:01 0.1	14:21 2.0	19:23 1.0	
☽	F	16	1:54 3.3	9:02 0.2	15:19 1.6	19:47 1.1	
S	S	17	2:39 3.4	10:10 0.3	16:21 1.4	20:14 1.1	
	S	18	3:29 3.4	11:26 0.4	18:53 1.2	20:52 1.1	
	M	19	4:28 3.3	12:56 0.5	. . . . .	. . . . .	
	Tu	20	5:34 3.1	14:26 0.5	. . . . .	. . . . .	
	W	21	6:55 2.9	15:21 0.5	20:40 1.4	. . . . .	
	Th	22	0:55 1.5	8:13 2.8	16:00 0.5	22:05 1.7	
A	F	23	2:45 1.4	9:19 2.7	16:30 0.5	23:01 2.0	
	S	24	4:00 1.2	10:15 2.7	16:56 0.6	23:26 2.2	
E ○	S	25	4:55 1.0	11:04 2.6	17:20 0.6	23:52 2.4	
	M	26	5:45 0.7	11:55 2.5	17:55 0.7	. . . . .	
	Tu	27	0:19 2.5	6:27 0.6	12:41 2.5	18:29 0.9	
	W	28	0:40 2.6	6:54 0.4	13:20 2.2	19:16 1.1	
	Th	29	1:01 2.8	7:37 0.3	14:08 2.0	20:01 1.3	
	F	30	1:22 2.9	8:24 0.2	15:04 1.6	20:40 1.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 120th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	1:31	9:08	16:25	21:26		☾	Tu	1	2:08	10:30	. . . . .				Th	1	2:35	10:12	17:13	21:20	
			3.0	0.2	1.5	1.7					3.3	0.2	. . . . .						2.9	0.4	1.5	1.4	
N	S	2	2:05	10:04	. . . . .				W	2	2:47	11:15	. . . . .			E	F	2	3:21	10:26	17:34	23:02	
☾			3.1	0.3	. . . . .						3.1	0.4	. . . . .						2.4	0.8	1.8	1.5	
	M	3	2:39	11:08	. . . . .				Th	3	3:38	11:57	. . . . .			P	S	3	4:54	10:52	18:05	. . .	
			3.1	0.4	. . . . .						2.7	0.7	. . . . .						1.9	1.2	2.1	. . .	
	Tu	4	3:20	12:25	. . . . .				F	4	4:50	12:38	19:17	. . .			S	4	0:24	7:09	11:19	18:43	
			3.1	0.5	. . . . .						2.3	1.0	1.6	. . .					1.3	1.6	1.3	2.5	
	W	5	4:15	13:58	. . . . .			E	S	5	0:44	6:55	13:20	19:58			M	5	2:28	10:20	12:00	19:31	
			2.9	0.6	. . . . .			P			1.6	2.0	1.2	1.9					0.9	1.4	1 3	2.9	
	Th	6	5:34	14:51	. . . . .				S	6	2:00	8:50	14:08	20:40			Tu	6	3:56	11:28	12:56	20:31	
			2.8	0.7	. . . . .						1.2	1.9	1.4	2.3					0.4	1.4	1.4	3.4	
	F	7	7:15	15:19	21:29	. . .		●	M	7	3:36	10:41	14:56	21:19		●	W	7	4:55	12:19	14:06	21:31	
			2.6	0.9	1.5	. . .					0.6	1.9	1.4	2.8					—0.1	1.4	1.4	3.7	
P	S	8	2:00	8:52	15:40	22:00			Tu	8	4:40	11:39	15:29	22:00		S	Th	8	5:40	12:47	15:10	22:24	
E			1.4	2.5	1.0	1.8					0.2	1.8	1.4	3.3					—0.4	1.4	1.3	4.0	
●	S	9	3:33	10:08	16:23	22:28			W	9	5:34	12:28	16:05	22:46			F	9	6:19	13:14	16:18	23:14	
			1.0	2.5	1.0	2.1					—0.3	1.7	1.4	3.7					—0.7	1.4	1.2	4.1	
	M	10	4:33	11:08	16:51	22:51			Th	10	6:22	13:11	16:47	23:32			S	10	6:57	13:44	17:15	. . .	
			0.6	2.4	1.1	2.6					—0.5	1.6	1.3	3.9					—0.8	1.6	1.?	. . .	
	Tu	11	5:21	12:05	17:14	23:23		S	F	11	7:10	13:52	17:28	. . .			S	11	0:01	7:34	14:19	18:11	
			0.2	2.3	1.2	3.0					—0.6	1.6	1.3	. . .					4.1	—0.8	1.6	1.3	
	W	12	6:16	13:03	17:38	23:58			S	12	0:18	7:53	14:34	18:12			M	12	0:47	8:10	14:54	19:07	
			—0.2	2.1	1.4	3.4					4.0	—0.7	1.6	1.3					4.0	—0.7	1.6	1.3	
	Th	13	7:10	13:50	18:04	. . .			S	13	1:02	8:37	15:18	19:00			Tu	13	1:35	8:44	15:25	20:10	
			—0.3	1.9	1.2	. . .					4.0	—0.6	1.6	1.3					3.7	—0.4	1.8	1.4	
	F	14	0:37	8:01	14:36	18:34			M	14	1:49	9:20	16:07	19:54			W	14	2:21	9:16	15:57	21:15	
			3.7	—0.3	1.6	1.2					3.8	—0.4	1.6	1.3					3.8	—0.2	1.9	1.5	
S	S	15	1:20	8:54	15:30	19:09		☽	Tu	15	2:35	10:02	16:59	20:58		☽	Th	15	3:11	9:50	16:35	22:30	
			3.8	—0.3	1.5	1.2					3.4	—0.1	1.6	1.5		A			2.8	0.1	2.1	1.5	
☽	S	16	2:05	9:47	16:30	19:48			W	16	3:27	10:45	17:45	22:22		E	F	16	4:05	10:28	17:20	23:45	
			3.7	—0.1	1.5	1.3					3.0	0.2	1.8	1.5					2.2	0.5	2.3	1.5	
	M	17	2:55	10:43	17:33	20:24		A	Th	17	4:29	11:26	18:30	. . .			S	17	5:27	10:59	18:05	. . .	
			3.5	0.1	1.4	1.4					2.5	0.4	1.8	. . .					1.7	0.8	2.5	. . .	
	Tu	18	3:46	11:42	19:00	21:48		E	F	18	0:06	5:57	12:15	19:22			S	18	1:14	7:05	11:30	18:56	
			3.1	0.3	1.5	1.5					1.5	2.0	0.8	2.2					1.5	1.5	1.1	2.5	
	W	19	4:49	12:41	20:06	23:50			S	19	1:56	7:17	13:25	20:16			M	19	3:20	19:42	. . . . .		
			2.8	0.5	1.6	1.5					1.5	1.8	1.0	2.3					1.1	2.7	. . . . .		
A	Th	20	6:10	13:36	20:47	. . .			S	20	3:05	9:23	14:11	20:55			Tu	20	4:30	20:25	. . . . .		
			2.5	0.7	1.9	. . .					1.2	1.7	1.2	2.5					0.6	2.9	. . . . .		
	F	21	1:49	7:45	14:35	21:16			M	21	4:10	10:41	14:54	21:30			W	21	5:06	21:05	. . . . .		
			1.5	2.3	0.8	2.1					0.8	1.6	1.3	2.7					0.2	3.2	. . . . .		
E	S	22	3:17	9:20	15:28	21:50			Tu	22	4:58	11:47	15:28	22:00			Th	22	5:39	21:45	. . . . .		
			1.3	2.2	1.0	2.3					0.5	1.6	1.5	3.0					—0.2	3.5	. . . . .		
	S	23	4:05	10:20	16:12	22:22		○	W	23	5:40	12:45	16:01	22:30		○	F	23	6:12	22:27	. . . . .		
			1.0	2.2	1.0	2.4					0.1	1.6	1.5	3.2		N			—0.4	3.7	. . . . .		
○	M	24	4:49	11:19	16:39	22:49			Th	24	6:18	13:39	16:15	23:00			S	24	6:45	14:45	15:55	23:09	
			0.7	2.2	1.2	2.7					—0.2	1.6	1.5	3.5					—0.6	1.6	1.5	3.8	
	Tu	25	5:35	12:14	17:02	23:15			F	25	6:52	14:26	16:35	23:37			S	25	7:16	15:00	16:45	23:50	
			0.4	2.1	1.3	2.9					—0.5	1.6	1.5	3.7					—0.7	1.5	1.5	3.9	
	W	26	6:16	13:05	17:21	23:41		N	S	26	7:29	15:14	17:05	. . .			M	26	7:44	15:07	17:31	. . .	
			0.1	2.0	1.4	3.1					—0.6	1.6	1.5	. . .					—0.6	1.5	1.4	. . .	
	Th	27	6:56	13:56	17:36	. . .			S	27	0:09	8:02	15:55	17:25			Tu	27	0:30	8:11	15:15	18:31	
			—0.1	1.8	1.5	. . .					3.8	—0.6	1.7	1.5					3.8	—0.4	1.5	1.4	
	F	28	0:07	7:36	14:49	17:50			M	28	0:44	8:40	16:26	18:12		P	W	28	1:10	8:36	15:23	19:32	
			3.3	—0.2	1.7	1.5					3.7	—0.5	1.4	1.5					3.5	—0.1	1.6	1.3	
N	S	29	0:35	8:16	15:51	18:14			Tu	29	1:20	9:14	16:42	19:04		E	Th	29	1:51	8:56	15:23	20:36	
			3.4	—0.3	1.6	1.5					3.6	—0.2	1.4	1.4		☾			3.1	0.2	1.8	1.3	
	S	30	1:05	9:00	. . . . .			☾	W	30	1:55	9:45	16:55	20:02			F	30	2:34	9:15	15:46	21:45	
			3.5	—0.2	. . . . .						3.3	0.1	1.5	1.5					2.6	0.5	2.1	1.3	
	M	31	1:34	9:44	. . . . .												S	31	3:34	9:35	16:13	23:00	
			3.4	—0.1	. . . . .														2.0	0.9	2.4	1.2	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Coast and Geodetic Survey Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 120th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
JANUARY.						
	F	1	2:27 2.1	9:31 0.2	14:23 0.7	20:00 —0.1
N ○	S	2	3:10 2.2	10:14 0.1	15:12 0.7	20:44 —0.1
	S	3	3:51 2.1	10:52 0.1	16:00 0.7	21:29 —0.1
P	M	4	4:30 2.2	11:32 0.1	16:52 0.7	22:14 0.0
	Tu	5	5:10 2.0	12:14 0.1	17:46 0.7	23:04 0.1
	W	6	5:53 1.9	12:57 0.0	18:47 0.8	. . . . . .
	Th	7	0:00 0.3	6:35 1.7	13:39 0.0	19:52 0.9
E	F	8	1:07 0.5	7:21 1.4	14:22 0.0	20:51 1.0
☾	S	9	2:34 0.6	8:14 1.2	15:06 0.1	22:07 1.2
	S	10	4:10 0.7	9:15 0.9	15:53 0.0	23:17 1.4
	M	11	5:48 0.7	10:21 0.7	16:41 0.0	. . . . . .
	Tu	12	0:15 1.5	7:10 0.6	11:31 0.7	17:32 0.0
	W	13	1:06 1.7	8:08 0.5	12:34 0.7	18:20 0.0
	Th	14	1:48 1.9	8:57 0.4	13:27 0.7	19:05 —0.1
S	F	15	2:27 2.0	9:34 0.3	14:13 0.7	19:47 0.0
	S	16	3:01 2.0	10:08 0.2	15:00 0.7	20:26 0.0
●	S	17	3:34 2.0	10:37 0.2	15:40 0.7	21:02 0.0
	M	18	4:02 1.9	11:00 0.2	16:21 0.7	21:40 0.1
A	Tu	19	4:32 1.9	11:30 0.2	17:08 0.7	22:17 0.2
	W	20	5:02 1.8	12:03 0.1	17:49 0.7	22:57 0.3
	Th	21	5:34 1.7	12:34 0.1	18:34 0.8	23:50 0.5
E	F	22	6:10 1.5	13:09 0.0	19:22 0.9	. . . . . .
	S	23	0:48 0.6	6:50 1.3	13:48 0.0	20:23 1.0
	S	24	2:05 0.7	7:30 1.1	14:33 0.0	21:36 1.2
☽	M	25	3:37 0.7	8:30 0.8	15:20 0.0	22:42 1.4
	Tu	26	5:14 0.7	9:42 0.7	16:17 0.0	23:42 1.6
	W	27	6:37 0.6	11:00 0.7	17:12 0.0	. . . . . .
	Th	28	0:36 1.8	7:37 0.5	12:17 0.7	18:07 —0.1
N	F	29	1:24 1.9	8:28 0.3	13:18 0.7	19:00 —0.1
	S	30	2:08 2.1	9:10 0.2	14:15 0.7	19:49 —0.1
	S	31	2:52 2.1	9:49 0.2	15:02 0.7	20:37 —0.1

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
FEBRUARY.						
○ P	M	1	3:32 2.1	10:24 0.1	15:50 0.8	21:25 —0.1
	Tu	2	4:12 2.0	11:00 0.1	16:37 1.0	22:13 0.0
	W	3	4:50 1.9	11:35 0.0	17:27 1.0	23:05 0.1
E	Th	4	5:30 1.7	12:12 0.0	18:20 1.1	. . . . . .
	F	5	0:00 0.3	6:10 1.5	12:50 0.0	19:08 1.2
	S	6	1:07 0.4	6:55 1.2	13:28 0.1	20:13 1.2
☾	S	7	2:25 0.6	7:43 0.9	14:14 0.1	21:27 1.3
	M	8	3:55 0.7	8:36 0.8	15:05 0.1	22:40 1.2
	Tu	9	5:40 0.7	9:38 0.8	16:00 0.2	23:44 1.5
	W	10	6:57 0.6	11:02 0.7	17:00 0.2	. . . . . .
S	Th	11	0:37 1.7	7:54 0.5	12:24 0.7	17:56 0.1
	F	12	1:23 1.7	8:32 0.3	13:22 0.7	18:48 0.1
	S	13	2:00 1.8	9:02 0.3	14:05 0.7	19:35 0.2
	S	14	2:35 1.8	9:30 0.3	14:45 0.7	20:16 0.1
A	M	15	3:05 1.8	9:52 0.2	15:25 0.8	20:54 0.1
●	Tu	16	3:32 1.8	10:16 0.1	16:02 0.9	21:35 0.2
	W	17	4:00 1.7	10:43 0.1	16:41 1.0	22:10 0.2
E	Th	18	4:32 1.6	11:10 0.0	17:12 1.1	22:56 0.3
	F	19	5:05 1.4	11:42 0.0	17:49 1.2	23:44 0.4
	S	20	5:40 1.3	12:14 0.0	18:38 1.3	. . . . . .
	S	21	0:38 0.5	6:21 1.1	12:57 0.1	19:34 1.3
	M	22	1:39 0.6	7:06 0.9	13:49 0.2	20:41 1.4
	Tu	23	3:06 0.7	8:02 0.8	14:36 0.1	21:55 1.5
☽	W	24	4:46 0.6	9:15 0.7	15:36 0.2	23:02 1.6
N	Th	25	6:12 0.5	10:52 0.7	16:44 0.2	. . . . . .
	F	26	0:04 1.7	7:12 0.4	12:11 0.7	17:49 0.1
	S	27	0:55 1.8	7:57 0.3	13:14 0.7	18:49 0.0
	S	28	1:45 1.9	8:35 0.2	14:05 0.8	19:42 0.0
	M	29	2:28 1.9	9:10 0.0	14:50 1.0	20:35 0.0

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
MARCH.						
P ○	Tu	1	3:10 1.9	9:45 0.0	15:35 1.2	21:24 0.0
E	W	2	3:50 1.8	10:17 0.0	16:19 1.3	22:14 0.0
	Th	3	4:27 1.6	10:50 —0.1	17:00 1.4	23:07 0.1
	F	4	5:10 1.4	11:25 0.0	17:44 1.4	23:56 0.2
	S	5	5:55 1.2	12:05 0.0	18:37 1.5	. . . . . .
	S	6	0:53 0.4	6:32 1.0	12:44 0.1	19:37 1.5
	M	7	2:05 0.6	7:16 0.8	13:30 0.2	20:42 1.5
☾	Tu	8	3:42 0.6	8:10 0.7	14:22 0.2	21:53 1.5
S	W	9	5:17 0.6	9:37 0.7	15:26 0.3	23:00 1.5
	Th	10	6:24 0.4	11:15 0.7	16:35 0.3	23:56 1.5
	F	11	7:13 0.4	12:21 0.7	17:41 0.3	. . . . . .
	S	12	0:46 1.6	7:47 0.3	13:13 0.7	18:39 0.3
A	S	13	1:26 1.6	8:13 0.3	13:57 0.9	19:28 0.2
	M	14	1:59 1.6	8:37 0.3	14:34 1.0	20:11 0.2
	Tu	15	2:31 1.5	9:01 0.1	15:07 1.1	20:51 0.2
●	W	16	3:00 1.5	9:27 0.0	15:37 1.2	21:30 0.2
E	Th	17	3:35 1.4	9:52 0.0	16:02 1.3	22:12 0.2
	F	18	4:10 1.3	10:26 0.0	16:40 1.4	22:50 0.2
	S	19	4:45 1.2	10:56 0.0	17:20 1.5	23:32 0.3
	S	20	5:18 1.1	11:30 0.1	18:06 1.5	. . . . . .
	M	21	0:28 0.4	5:58 0.9	12:07 0.1	18:55 1.5
	Tu	22	1:34 0.5	6:46 0.8	12:51 0.2	19:54 1.5
	W	23	2:53 0.5	7:49 0.7	13:47 0.2	21:03 1.5
N ☽	Th	24	4:19 0.5	9:20 0.7	15:00 0.2	22:18 1.6
	F	25	5:32 0.4	10:58 0.7	16:20 0.3	23:25 1.6
	S	26	6:29 0.3	12:10 0.7	17:37 0.3	. . . . . .
	S	27	0:22 1.6	7:12 0.2	13:06 1.0	18:42 0.2
	M	28	1:14 1.6	7:50 0.1	13:52 1.2	19:41 0.1
P	Tu	29	2:00 1.6	8:26 0.0	14:36 1.4	20:35 0.0
E	W	30	2:45 1.5	8:58 —0.1	15:11 1.5	21:24 0.0
○	Th	31	3:32 1.5	9:39 —0.1	15:54 1.6	22:08 0.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Hawaiian Government Survey Charts for this region, and which is 0.7 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hawaiian Standard, 157° 30′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	4:10 1.3	10:10 0.0	16:37 1.7	23:00 0.1	
	S	2	4:48 1.1	10:46 0.0	17:22 1.7	23:51 0.2	
	S	3	5:25 0.9	11:23 0.0	18:08 1.7	. . .	
	M	4	0:50 0.4	6:07 0.8	12:00 0.1	19:00 1.6	
S	Tu	5	1:54 0.5	6:56 0.7	12:44 0.3	19:56 1.6	
	W	6	3:12 0.5	7:54 0.7	13:35 0.4	20:58 1.5	
☾	Th	7	4:26 0.5	9:36 0.7	14:47 0.5	22:00 1.4	
	F	8	5:27 0.4	11:10 0.7	16:07 0.6	23:00 1.4	
	S	9	6:06 0.4	12:15 0.7	17:25 0.6	23:54 1.4	
A	S	10	6:43 0.3	13:00 0.9	18:26 0.5	. . .	
	M	11	0:35 1.3	7:13 0.2	13:38 1.1	19:18 0.4	
	Tu	12	1:19 1.3	7:45 0.1	14:03 1.2	20:04 0.3	
E	W	13	2:00 1.3	8:12 0.0	14:37 1.4	20:46 0.3	
	Th	14	2:36 1.2	8:44 0.0	15:10 1.5	21:22 0.2	
●	F	15	3:10 1.2	9:13 0.0	15:42 1.6	22:03 0.3	
	S	16	3:44 1.1	9:42 0.0	16:17 1.7	22:47 0.3	
	S	17	4:19 0.9	10:14 0.0	16:57 1.8	23:37 0.3	
	M	18	4:57 0.8	10:45 0.0	17:40 1.8	. . .	
	Tu	19	0:32 0.4	5:44 0.7	11:24 0.1	18:27 1.8	
N	W	20	1:33 0.4	6:35 0.7	12:09 0.2	19:21 1.7	
	Th	21	2:41 0.4	7:52 0.7	13:08 0.3	20:23 1.6	
☽	F	22	3:51 0.4	9:29 0.7	14:28 0.4	21:30 1.6	
	S	23	4:50 0.3	10:56 0.7	16:02 0.5	22:40 1.5	
	S	24	5:41 0.2	12:00 0.9	17:27 0.4	23:43 1.4	
	M	25	6:26 0.1	12:46 1.2	18:38 0.3	. . .	
P E	Tu	26	0:42 1.3	7:03 0.0	13:27 1.4	19:40 0.2	
	W	27	1:38 1.3	7:43 0.0	14:12 1.6	20:30 0.2	
	Th	28	2:22 1.2	8:22 —0.1	15:54 1.6	21:21 0.2	
○	F	29	3:01 1.1	8:57 —0.1	15:37 1.8	22:10 0.2	
	S	30	3:40 0.9	9:30 —0.1	16:16 1.9	23:00 0.2	

MAY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	4:21 0.8	10:05 —0.1	17:00 1.9	23:50 0.3	
	M	2	5:02 0.7	10:40 0.0	17:40 1.9	. . .	
S	Tu	3	0:43 0.3	5:46 0.7	11:17 0.1	18:23 1.8	
	W	4	1:36 0.4	6:44 0.7	11:58 0.2	19:10 1.7	
	Th	5	2:35 0.4	7:57 0.7	12:47 0.4	19:59 1.6	
	F	6	3:29 0.4	9:30 0.7	13:59 0.6	20:52 1.4	
☾	S	7	4:19 0.3	10:50 0.8	15:27 0.7	21:49 1.3	
A	S	8	5:04 0.2	11:45 0.8	16:52 0.7	22:47 1.2	
	M	9	5:42 0.1	12:24 1.0	18:06 0.6	23:47 1.2	
E	Tu	10	6:17 0.1	13:03 1.2	19:05 0.5	. . .	
	W	11	0:36 1.0	6:50 0.0	13:40 1.4	19:55 0.5	
	Th	12	1:18 1.0	7:27 0.0	14:17 1.6	20:40 0.5	
	F	13	2:00 0.9	8:01 —0.1	14:50 1.8	21:21 0.4	
	S	14	2:39 0.8	8:33 —0.1	15:24 1.9	22:07 0.3	
●	S	15	3:17 0.8	9:05 —0.1	16:00 1.9	22:52 0.3	
	M	16	4:00 0.8	9:36 —0.1	16:39 2.0	23:40 0.3	
N	Tu	17	4:45 0.7	10:12 0.0	17:21 2.0	. . .	
	W	18	0:31 0.3	5:35 0.7	10:54 0.1	18:06 1.9	
	Th	19	1:26 0.2	6:36 0.7	11:42 0.2	18:55 1.8	
	F	20	2:20 0.2	7:54 0.7	12:44 0.4	19:52 1.7	
☽	S	21	3:14 0.2	9:24 0.7	14:07 0.5	20:52 1.5	
P	S	22	4:07 0.2	10:36 0.8	15:46 0.6	21:55 1.3	
	M	23	4:56 0.1	11:30 1.0	17:21 0.5	23:07 1.2	
E	Tu	24	5:38 0.0	12:25 1.3	18:36 0.4	. . .	
	W	25	0:10 1.0	6:20 0.0	13:14 1.6	19:40 0.4	
	Th	26	1:02 0.9	7:00 —0.1	14:00 1.8	20:37 0.4	
	F	27	1:50 0.8	7:41 —0.1	14:41 1.9	21:30 0.4	
○	S	28	2:33 0.8	8:18 —0.2	15:20 2.0	22:17 0.3	
	S	29	3:15 0.7	8:54 —0.2	16:00 2.1	23:01 0.2	
S	M	30	3:59 0.7	9:30 —0.1	16:38 2.1	23:45 0.2	
	Tu	31	4:42 0.7	10:06 0.0	17:15 2.0	. . .	

JUNE.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	W	1	0:27 0.3	5:27 0.7	10:42 0.1	17:52 1.9	
	Th	2	1:07 0.3	6:28 0.7	11:23 0.3	18:32 1.7	
	F	3	1:50 0.2	7:32 0.7	12:12 0.4	19:11 1.6	
	S	4	2:35 0.2	8:54 0.7	13:13 0.6	19:52 1.4	
A ☾	S	5	3:21 0.1	9:59 0.8	14:42 0.7	20:45 1.3	
	M	6	4:02 0.1	11:00 0.9	16:17 0.7	21:45 1.1	
E	Tu	7	4:42 0.1	11:50 1.1	17:42 0.7	22:43 0.9	
	W	8	5:22 0.0	12:35 1.3	18:50 0.7	23:40 0.8	
	Th	9	6:01 0.0	13:15 1.6	19:47 0.6	. . .	
	F	10	0:37 0.7	6:44 —0.1	13:55 1.8	20:40 0.5	
	S	11	1:28 0.7	7:24 —0.1	14:30 1.9	21:24 0.4	
	S	12	2:16 0.8	8:00 —0.2	15:07 2.0	22:05 0.3	
●	M	13	3:02 0.8	8:38 —0.1	15:45 2.1	22:47 0.3	
N	Tu	14	3:48 0.8	9:15 —0.1	16:24 2.1	23:31 0.2	
	W	15	4:37 0.7	9:56 0.0	17:05 2.1	. . .	
	Th	16	0:16 0.2	5:28 0.7	10:42 0.1	17:46 2.0	
P	F	17	1:01 0.2	6:30 0.7	11:33 0.2	18:32 1.8	
	S	18	1:47 0.1	7:38 0.7	12:36 0.4	19:20 1.6	
	S	19	2:35 0.1	8:52 0.8	13:59 0.7	20:14 1.4	
☽ E	M	20	3:22 0.0	10:00 0.9	15:37 0.7	21:20 1.2	
	Tu	21	4:07 0.1	11:07 1.2	17:13 0.7	22:27 0.9	
	W	22	4:52 0.0	12:08 1.4	18:37 0.7	23:32 0.8	
	Th	23	5:40 —0.1	13:00 1.7	19:45 0.6	. . .	
	F	24	0:29 0.7	6:24 —0.1	13:44 1.9	20:41 0.4	
	S	25	1:23 0.7	7:07 —0.1	14:27 2.0	21:30 0.4	
	S	26	2:10 0.7	7:50 —0.1	15:03 2.1	22:11 0.3	
S ○	M	27	2:56 0.7	8:29 —0.1	15:41 2.1	22:50 0.3	
	Tu	28	3:38 0.7	9:07 —0.1	16:15 2.0	23:22 0.2	
	W	29	4:23 0.7	9:43 0.0	16:49 2.0	23:52 0.2	
	Th	30	5:10 0.7	10:21 0.2	17:20 1.8	. . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Hawaiian Government Survey Charts for this region, and which is 0.7 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hawaiian Standard, 157° 30′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	0:28 0.2	6:02 0.7	11:00 0.2	17:52 1.7
A	S	2	1:04 0.2	6:58 0.7	11:49 0.4	18:27 1.6
	S	3	1:41 0.1	7:51 0.7	12:51 0.7	19:07 1.4
E	M	4	2:20 0.0	8:53 0.8	14:08 0.7	19:47 1.2
☾	Tu	5	3:00 0.1	10:01 1.0	15:36 0.7	20:37 1.0
	W	6	3:44 0.0	11:05 1.2	17:13 0.7	21:40 0.8
	Th	7	4:31 0.0	11:58 1.4	18:34 0.6	22:54 0.7
	F	8	5:20 0.0	12:46 1.6	19:36 0.5	. . . . . .
	S	9	0:05 0.9	6:09 —0.1	13:30 1.8	20:28 0.4
	S	10	1:03 0.7	6:56 —0.1	14:11 2.0	21:12 0.4
N	M	11	2:00 0.7	7:40 —0.1	14:51 2.1	21:53 0.3
●	Tu	12	2:51 0.7	8:23 —0.1	15:29 2.1	22:31 0.2
	W	13	3:40 0.7	9:13 —0.1	16:08 2.1	23:09 0.2
P	Th	14	4:27 0.7	9:52 0.0	16:47 2.0	23:47 0.1
	F	15	5:17 0.7	10:41 0.1	17:30 1.9	. . . . . .
	S	16	0:27 0.1	6:14 0.8	11:33 0.3	18:10 1.7
E	S	17	1:07 0.0	7:15 0.9	12:37 0.5	18:53 1.5
	M	18	1:50 0.0	8:09 1.0	13:55 0.6	19:45 1.2
☽	Tu	19	2:30 0.1	9:25 1.1	15:30 0.7	20:38 0.9
	W	20	3:17 0.1	10:37 1.3	17:10 0.7	21:42 0.8
	Th	21	4:10 0.1	11:45 1.5	18:41 0.6	22:54 0.7
	F	22	5:01 0.1	12:40 1.7	19:48 0.5	. . . . . .
	S	23	0:08 0.7	5:54 0.0	13:27 1.8	20:37 0.4
S	S	24	1:08 0.7	6:45 0.0	14:10 1.9	21:17 0.3
	M	25	2:02 0 7	7:32 —0.1	14:46 2.0	21:49 0.3
○	Tu	26	2:44 0.7	8:16 0.0	15:19 2.0	22:20 0.2
	W	27	3:27 0.7	8:54 0.0	15:50 1.9	22:44 0.2
	Th	28	4:08 0.7	9:32 0.1	16:19 1.8	23:12 0.2
	F	29	4:49 0.8	10:10 0.2	16:49 1.7	23:41 0.1
A	S	30	5:32 0.9	10:50 0.3	17:19 1.6	. . . . . .
E	S	31	0:12 0.1	6:12 0.9	11:37 0.5	17:52 1.4

AUGUST.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	M	1	0:46 0.0	6:57 1.0	12:31 0.6	18:27 1.3
	Tu	2	1:20 0.0	7:57 1.1	13:38 0.6	19:05 1.1
	W	3	2:02 0.1	9:02 1.2	15:07 0.7	20:00 0.8
☾	Th	4	2:49 0.1	10:12 1.3	16:44 0.7	21:06 0.8
	F	5	3:46 0.1	11:15 1.5	18:14 0.6	22:26 0.7
	S	6	4:44 0.0	12:14 1.7	19:17 0.5	23:47 0.7
	S	7	5:42 0.0	13:03 1.8	20:07 0.4	. . . . . .
N	M	8	0:56 0.7	6:38 0.0	13:47 1.9	20:47 0.3
	Tu	9	1:44 0.7	7:29 —0.1	14:30 2.0	21:25 0.2
	W	10	2:42 0.7	8:17 —0.1	15:10 2.0	21:58 0.1
● P	Th	11	3:29 0.9	9:04 —0.1	15:50 2.0	22:34 0.1
	F	12	4:13 1.0	9:55 0.0	16:30 1.8	23:08 0.1
	S	13	5:02 1.1	10:42 0.1	17:07 1.7	23:44 0.0
E	S	14	5:50 1.2	11:37 0.2	17:48 1.5	. . . . . .
	M	15	0:20 0.0	6:35 1.2	12:40 0.4	18:33 1.2
	Tu	16	1:00 0.1	7:36 1.3	13:50 0.5	19:17 1.0
☽	W	17	1:45 0.2	8:47 1.3	15:17 0.6	20:09 0.7
	Th	18	2:34 0.2	10:02 1.4	17:03 0.6	21:21 0.7
	F	19	3:32 0.1	11:13 1.5	18:30 0.6	22:38 0.7
S	S	20	4:34 0.2	12:22 1.6	19:28 0.5	. . . . . .
	S	21	0:00 0.7	5:35 0.2	13:02 1.7	20:12 0.4
	M	22	1:03 0.7	6:32 0.1	13:44 1.8	20:45 0.3
	Tu	23	1:56 0.7	7:22 0.1	14:20 1.8	21:12 0.3
	W	24	2:37 0.7	8:09 0.1	14:51 1.7	21:35 0.2
○	Th	25	3:13 0.9	8:48 0.2	15:20 1.7	21:58 0.1
A	F	26	3:50 1.0	9:27 0.2	15:47 1.6	22:23 0.1
	S	27	4:25 1.1	10:05 0.2	16:19 1.5	22:51 0.0
E	S	28	4:55 1.2	10:49 0.3	16:51 1.4	23:18 0.0
	M	29	5:32 1.3	11:34 0.4	17:25 1.2	23:53 0.0
	Tu	30	6:16 1.3	12:19 0.4	18:02 1.1	. . . . . .
	W	31	0:28 0.1	7:09 1.3	13:14 0.6	18:42 0.9

SEPTEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	1:12 0.1	8:10 1.4	14:34 0.7	19:33 0.8
☾	F	2	2:05 0.1	9:16 1.4	16:10 0.7	20:45 0.8
	S	3	3:04 0.2	10:28 1.5	17:38 0.6	22:24 0.7
N	S	4	4:13 0.2	11:33 1.6	18:42 0.4	23:49 0.7
	M	5	5:25 0.2	12:28 1.7	19:28 0.4	. . . . . .
	Tu	6	0:58 0.7	6:27 0.1	13:20 1.8	20:09 0.2
	W	7	1:45 0.9	7:23 0.1	14:24 1.8	20:43 0.1
	Th	8	2:32 1.1	8:17 0.0	14:48 1.8	21:17 0.0
P ●	F	9	3:14 1.2	9:07 0.0	15:27 1.7	21:52 0.0
E	S	10	3:58 1.3	9:58 0.0	16:09 1.5	22:24 —0.1
	S	11	4:36 1.4	10:47 0.0	16:54 1.4	23:14 0.0
	M	12	5:21 1.5	11:33 0.2	17:34 1.2	23:40 0.0
	Tu	13	6:10 1.5	12:31 0.4	18:14 1.0	. . . . . .
	W	14	0:20 0.1	7:07 1.5	13:40 0.5	19:00 0.8
	Th	15	1:03 0.1	8:10 1.5	15:07 0.6	19:55 0.7
☽ S	F	16	1:54 0.2	9:18 1.5	16:42 0.6	21:12 0.7
	S	17	3:00 0.3	10:30 1.5	17:57 0.5	22:52 0.7
	S	18	4:11 0.3	11:32 1.5	18:48 0.4	. . . . . .
	M	19	0:09 0.7	5:23 0.4	12:25 1.5	19:26 0.3
	Tu	20	1:02 0.7	6:27 0.4	13:07 1.5	19:52 0.3
	W	21	1:48 0.9	7:19 0.3	13:45 1.5	20:18 0.2
A	Th	22	2:23 1.0	8:05 0.3	14:17 1.4	20:42 0.1
	F	23	2:56 1.2	8:45 0.2	14:50 1.4	21:07 0.0
○ E	S	24	3:20 1.3	9:24 0.2	15:24 1.3	21:38 0.0
	S	25	3:52 1.4	10:02 0.2	15:57 1.3	22:07 0.0
	M	26	4:27 1.5	10:37 0.3	16:28 1.2	22:35 0.0
	Tu	27	5:05 1.5	11:20 0.4	17:00 1.0	23:07 0.0
	W	28	5:45 1.6	12:12 0.4	17:38 0.8	23:41 0.1
	Th	29	6:30 1.6	13:15 0.5	18:23 0.7	. . . . . .
	F	30	0:20 0.1	7:24 1.6	14:25 0.6	19:23 0.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Hawaiian Government Survey Charts for this region, and which is 0.7 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hawaiian Standard, 157° 30′ W.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon: ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E., moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	OCTOBER.					
N	S	1	1:12	8:28	15:41	20:51
			0.2	1.6	0.5	0.7
☾	S	2	2:21	9:40	16:58	22:32
			0.3	1.5	0.5	0.7
	M	3	3:47	10:50	17:57	23:49
			0.4	1.5	0.4	0.7
	Tu	4	5:10	11:50	18:44	. . .
			0.4	1.6	0.3	. . .
	W	5	0:46	6:20	12:46	19:22
			0.9	0.3	1.5	0.1
	Th	6	1:32	7:22	13:35	19:59
			1.2	0.2	1.6	0.0
P E	F	7	2:14	8:17	14:25	20:37
			1.3	0.1	1.4	0.0
●	S	8	2:51	9:04	15:10	21:14
			1.5	0.0	1.4	—0.1
	S	9	3:34	9:52	15:50	21:49
			1.6	0.1	1.2	—0.1
	M	10	4:15	10:44	16:30	22:24
			1.7	0.1	1.1	—0.1
	Tu	11	5:00	11:36	17:10	22:58
			1.8	0.2	0.8	0.0
	W	12	5:45	12:32	17:52	23:37
			1.8	0.3	0.8	0.1
	Th	13	6:35	13:35	18:42	. . .
			1.7	0.4	0.7	. . .
S	F	14	0:20	7:30	14:48	19:51
			0.2	1.7	0.5	0.7
☽	S	15	1:11	8:29	15:57	21:25
			0.3	1.5	0.4	0.7
	S	16	2:19	9:32	17:00	22:54
			0.4	1.5	0.4	0.7
	M	17	3:45	10:34	17:44	. . .
			0.5	1.4	0.3	. . .
	Tu	18	0:00	5:08	11:28	18:22
			0.7	0.6	1.3	0.2
	W	19	0:50	6:13	12:15	18:54
			0.9	0.6	1.3	0.1
A	Th	20	1:20	7:10	13:04	19:23
			1.1	0.5	1.2	0.1
E	F	21	1:54	7:57	13:44	19:56
			1.2	0.4	1.2	0.0
	S	22	2:27	8:40	14:18	20:25
			1.4	0.3	1.1	0.0
	S	23	3:00	9:18	14:52	20:53
			1.5	0.4	1.0	0.0
○	M	24	3:32	9:57	15:25	21:22
			1.7	0.3	0.9	0.0
	Tu	25	4:05	10:37	16:00	21:52
			1.7	0.3	0.8	0.0
	W	26	4:40	11:25	16:38	22:22
			1.8	0.3	0.7	0.0
	Th	27	5:20	12:25	17:22	22:58
			1.8	0.4	0.7	0.1
N	F	28	6:05	13:12	18:17	23:41
			1.8	0.4	0.7	0.1
	S	29	6:54	14:12	19:26	. . .
			1.7	0.4	0.7	. . .
	S	30	0:35	7:50	15:15	20:58
			0.3	1.7	0.3	0.7
☾	M	31	1:47	8:55	16:17	22:30
			0.4	1.6	0.3	0.7

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	NOVEMBER.					
	Tu	1	3:21	10:02	17:10	23:37
			0.4	1.5	0.2	0.8
	W	2	4:55	11:06	17:55	. . .
			0.5	1.4	0.1	. . .
	Th	3	0:19	6:13	12:12	18:36
			1.1	0.4	1.3	0.0
E	F	4	1:07	7:18	13:10	19:17
			1.4	0.3	1.2	0.0
P	S	5	1:52	8:11	13:58	19:56
			1.6	0.2	0.4	—0.1
	S	6	2:35	9:04	14:40	20:33
			1.8	0.2	1.0	—0.1
●	M	7	3:19	9:56	15:22	21:08
			1.9	0.2	0.8	—0.1
	Tu	8	4:00	10:47	16:04	21:45
			2.0	0.2	0.8	—0.1
	W	9	4:42	11:38	16:47	22:22
			2.0	0.2	0.7	—0.1
S	Th	10	5:24	12:28	17:34	23:00
			2.0	0.3	0.7	0.0
	F	11	6:07	13:22	18:31	23:40
			1.9	0.3	0.7	0.2
	S	12	6:52	14:14	19:42	. . .
			1.7	0.4	0.7	. . .
	S	13	0:31	7:38	15:08	21:11
			0.4	1.6	0.3	0.7
☽	M	14	1:37	8:32	15:57	22:31
			0.5	1.5	0.3	0.7
	Tu	15	3:05	9:24	16:42	23:28
			0.7	1.3	0.2	0.6
A	W	16	4:37	10:24	17:22	. . .
			0.7	1.2	0.1	. . .
	Th	17	0:14	5:54	11:25	17:57
			1.0	0.7	1.0	0.1
E	F	18	0:55	6:56	12:15	18:31
			1.2	0.6	1.0	0.0
	S	19	1:31	7:48	12:58	19:06
			1.4	0.6	0.8	0.0
	S	20	2:06	8:37	13:40	19:41
			1.6	0.5	0.7	0.0
	M	21	2:40	9:18	14:20	20:15
			1.8	0.5	0.7	—0.1
○	Tu	22	3:12	9:57	15:00	20:46
			1.9	0.4	0.7	—0.1
	W	23	3:46	10:40	15:40	21:18
			2.0	0.3	0.7	—0.1
	Th	24	4:22	11:25	16:24	21:53
			2.0	0.3	0.7	0.0
N	F	25	5:02	12:12	17:15	22:32
			2.0	0.2	0.7	0.1
	S	26	5:44	13:02	18:13	23:19
			1.9	0.2	0.7	0.2
	S	27	6:30	13:52	19:25	. . .
			1.8	0.2	0.7	. . .
	M	28	0:15	7:20	14:43	20:47
			0.3	1.7	0.2	0.7
☾	Tu	29	1:29	8:16	15:35	22:00
			0.5	1.5	0.1	0.8
	W	30	3:06	9:18	16:24	23:00
			0.7	1.8	0.1	1.0

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	DECEMBER.					
E	Th	1	4:46	10:31	17:06	23:59
			0.7	1.2	0.0	1.3
P	F	2	6:07	11:38	17:52	. . .
			0.5	1.0	0.0	. . .
	S	3	0:52	7:18	12:35	18:36
			1.5	0.5	0.9	—0.1
	S	4	1:39	8:20	13:26	19:17
			1.8	0.5	0.8	—0.1
	M	5	2:22	9:13	14:14	20:00
			2.0	0.4	0.8	—0.2
●	Tu	6	3:04	10:02	14:58	20:37
			2.1	0.2	0.7	—0.2
	W	7	3:44	10:49	15:42	21:17
			2.1	0.2	0.7	—0.1
S	Th	8	4:25	11:33	16:29	21:55
			2.1	0.3	0.7	0.0
	F	9	5:02	12:12	17:18	22:35
			2.0	0.2	0.7	0.1
	S	10	5:40	12:53	18:15	23:17
			1.9	0.2	0.7	0.2
	S	11	6:15	13:33	19:20	. . .
			1.8	0.2	0.7	. . .
	M	12	0:02	6:57	14:07	20:30
			0.4	1.6	0.2	0.7
	Tu	13	1:03	7:34	15:00	21:38
			0.5	1.5	0.1	0.7
☽ A	W	14	2:22	8:23	15:42	22:42
			0.7	1.3	0.1	0.8
E	Th	15	3:57	9:17	16:22	23:36
			0.7	1.1	0.1	1.1
	F	16	5:25	10:16	17:02	. . .
			0.7	0.9	0.0	. . .
	S	17	0:24	6:38	11:17	17:43
			1.3	0.7	0.8	0.0
	S	18	1:05	7:40	12:12	18:25
			1.5	0.6	0.7	0.0
	M	19	1:42	8:30	13:07	19:05
			1.7	0.6	0.7	—0.1
	Tu	20	2:20	9:14	13:57	19:43
			1.9	0.5	0.7	—0.1
	W	21	2:54	9:55	14:43	20:22
			2.0	0.4	0.7	—0.1
○ N	Th	22	3:30	10:32	15:30	21:00
			2.1	0.3	0.7	—0.1
	F	23	4:08	11:13	16:17	21:40
			2.1	0.2	0.7	—0.1
	S	24	4:47	11:55	17:07	22:22
			2.1	0.2	0.7	0.0
	S	25	5:26	12:37	18:04	23:12
			2.0	0.1	0.7	0.2
	M	26	6:09	13:21	19:07	. . .
			1.8	0.1	0.7	. . .
P	Tu	27	0:09	6:54	14:05	20:17
			0.4	1.7	0.1	0.8
	W	28	1:23	7:42	14:49	21:18
			0.5	1.4	0.0	0.9
E ☾	Th	29	2:58	8:42	15:33	22:33
			0.7	1.2	0.1	1.2
	F	30	4:37	9:50	16:22	23:39
			0.7	0.9	0.0	1.4
	S	31	6:07	10:58	17:12	. . .
			0.7	0.8	0.0	. . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water, which is the datum of soundings on the Hawaiian Government Survey Charts for this region, and which is 0.7 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Hawaiian Standard, 157° 30′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	F	1	4:50	10:55	17:10	23:29		○ P	M	1	6:10	12:20	18:32	. . .		P	Tu	1	5:50	12:00	18:12	. . .	
			3.0	0.1	3.4	—0.1					3.3	—0.2	3.6	. . .		○			3.5	—0.3	3.6	. . .	
○	S	2	5:40	11:43	17:59	. . .			Tu	2	0:47	7:00	13:08	19:20		E	W	2	0:28	6:37	12:50	19:00	
			3.1	0.0	3.4	. . .					—0.4	3.4	—0.2	3.5					—0.4	3.5	—0.4	3.5	
	S	3	0:16	6:28	12:33	18:47			W	3	1:34	7:46	13:59	20:10			Th	3	1:12	7:25	13:37	19:50	
			—0.2	3.2	0.0	3.5					—0.3	3.4	—0.2	3.4					—0.4	3.5	—0.3	3.5	
P	M	4	1:05	7:17	13:24	19:37		E	Th	4	2:24	8:36	14:47	21:00			F	4	2:02	8:12	14:26	20:38	
			—0.2	3.2	—0.1	3.4					—0.2	3.3	—0.1	3.3					—0.2	3.4	—0.2	3.3	
	Tu	5	1:55	8:07	14:17	20:30			F	5	3:15	9:30	15:42	21:56			S	5	2:50	9:03	15:17	21:29	
			—0.2	3.2	0.0	3.3					—0.1	3.2	0.1	3.1					—0.1	3.2	0.0	3.0	
	W	6	2:49	9:00	15:12	21:24			S	6	4:09	10:27	16:42	22:56			S	6	3:42	9:57	16:13	22:28	
			—0.1	3.1	0.1	3.2					0.1	3.1	0.2	2.9					0.2	3.0	0.2	2.8	
	Th	7	3:42	9:56	16:09	22:21			S	7	5:08	11:27	17:47	. . .			M	7	4:40	10:56	17:17	23:33	
			0.0	3.1	0.2	3.0					0.3	2.9	0.3	. . .					0.4	2.9	0.4	2.6	
E	F	8	4:40	10:56	17:10	23:25		☾	M	8	0:02	6:15	12:34	18:57		☾	Tu	8	5:45	12:00	18:25	. . .	
			0.1	3.0	0.3	2.9					2.7	0.4	2.8	0.4					0.5	2.7	0.5	. . .	
☾	S	9	5:40	12:00	18:15	. . .			Tu	9	1:12	7:22	13:38	20:02		S	W	9	0:43	6:54	13:10	19:32	
			0.2	3.0	0.3	. . .					2.7	0.4	2.8	0.4					2.5	0.6	2.7	0.5	
	S	10	0:30	6:42	13:04	19:23			W	10	2:20	8:25	14:40	21:01			Th	10	1:52	8:00	14:12	20:33	
			2.8	0.3	2.9	0.3					2.7	0.4	2.9	0.4					2.5	0.6	2.7	0.5	
	M	11	1:38	7:49	14:06	20:25		S	Th	11	3:18	9:22	15:32	21:52			F	11	2:52	8:59	15:06	21:25	
			2.8	0.3	3.0	0.3					2.7	0.4	2.9	0.3					2.6	0.5	2.8	0.4	
	Tu	12	2:41	8:48	15:00	21:22			F	12	4:08	10:10	16:18	22:37			S	12	3:41	9:45	15:53	22:07	
			2.8	0.3	3.0	0.2					2.7	0.4	3.0	0.3					2.7	0.5	2.8	0.4	
	W	13	3:37	9:41	15:52	22:13			S	13	4:50	10:52	17:00	23:15		A	S	13	4:21	10:27	16:34	22:47	
			2.8	0.3	3.1	0.2					2.8	0.4	3.0	0.3					2.7	0.4	2.9	0.3	
	Th	14	4:27	10:30	16:37	22:57			S	14	5:26	11:27	17:36	23:50			M	14	4:56	11:00	17:08	23:18	
			2.9	0.3	3.1	0.2					2.8	0.4	3.0	0.3					2.8	0.4	2.9	0.3	
S	F	15	5:10	11:22	17:20	23:38		A ●	M	15	5:57	12:00	18:08	. . .			Tu	15	5:25	11:30	17:38	23:48	
			2.8	0.3	3.1	—0.2					2.8	0.4	2.9	. . .					2.8	0.3	2.9	0.3	
	S	16	5:48	11:50	17:57	. . .			Tu	16	0:22	6:26	12:30	18:38		●	W	16	5:54	12:02	18:08	. . .	
			2.8	0.3	3.0	. . .					0.3	2.8	0.4	2.9					2.9	0.3	2.9	. . .	
●	S	17	0:13	6:24	12:25	18:34			W	17	0:50	6:55	13:00	19:07		E	Th	17	0:17	6:24	12:32	18:39	
			—0.2	2.8	0.4	3.0					0.3	2.8	0.4	2.8					0.3	2.9	0.3	2.9	
	M	18	0:47	6:55	12:55	19:05		E	Th	18	1:20	7:27	13:30	19:38			F	18	0:48	6:57	13:05	19:11	
			0.3	2.7	0.5	2.9					0.3	2.8	0.4	2.8					0.3	2.9	0.3	2.9	
A	Tu	19	1:18	7:27	13:28	19:37			F	19	1:51	8:00	14:09	20:16			S	19	1:22	7:32	13:46	19:50	
			0.3	2.7	0.5	2.8					0.4	2.8	0.4	2.7					0.3	2.9	0.3	2.8	
	W	20	1:52	8:00	14:02	20:10			S	20	2:38	8:40	14:51	21:00			S	20	2:00	8:11	14:25	20:32	
			0.4	2.6	0.6	2.7					0.4	2.7	0.5	2.6					0.4	2.8	0.3	2.7	
	Th	21	2:25	8:32	14:40	20:48			S	21	3:11	9:25	15:37	21:46			M	21	2:40	8:59	15:16	21:23	
			0.5	2.6	0.6	2.6					0.5	2.7	0.5	2.6					0.5	2.8	0.4	2.6	
E	F	22	3:02	9:14	15:22	21:32			M	22	3:58	10:20	16:27	22:46			Tu	22	3:33	9:53	16:16	22:24	
			0.5	2.6	0.6	2.6					0.6	2.6	0.6	2.5					0.6	2.7	0.5	2.5	
	S	23	3:46	10:00	16:10	22:21		☽	Tu	23	5:00	11:25	17:47	23:57			W	23	4:36	11:00	17:26	23:38	
			0.6	2.6	0.6	2.5					0.7	2.6	0.6	2.4					0.7	2.6	0.6	2.5	
	S	24	4:35	10:57	17:10	23:26			W	24	6:11	12:35	19:00	. . .		N ☽	Th	24	5:51	12:13	18:40	. . .	
			0.6	2.6	0.7	2.5					0.7	2.6	0.5	. . .					0.7	2.6	0.5	. . .	
☽	M	25	5:35	12:00	18:18	. . .		N	Th	25	1:12	7:27	13:45	20:09			F	25	0:55	7:07	13:25	19:49	
			0.7	2.6	0.6	. . .					2.5	0.6	2.8	0.4					2.5	0.6	2.8	0.4	
	Tu	26	0:27	6:43	13:04	19:26			F	26	2:22	8:33	14:48	21:09			S	26	2:03	8:15	14:30	20:47	
			2.5	0.6	2.7	0.5					2.7	0.4	3.0	0.2					2.7	0.4	3.0	0.2	
	W	27	1:37	7:50	14:08	20:20			S	27	3:22	9:32	15:46	22:02			S	27	3:02	9:14	15:27	21:41	
			2.5	0.5	2.8	0.4					2.9	0.2	3.2	0.0					3.0	—0.1	3.2	0.0	
	Th	28	2:42	8:52	15:07	21:29			S	28	4:15	10:25	16:37	22:52			M	28	3:55	10:07	16:18	22:31	
			2.7	0.4	3.1	0.2					3.1	0.0	3.4	—0.2					3.2	—0.1	3.4	—0.2	
N	F	29	3:40	9:48	16:02	22:21			M	29	5:05	11:15	17:25	23:40		P	Tu	29	4:43	10:56	17:08	23:20	
			2.9	0.2	3.2	0.0					3.3	—0.2	3.5	—0.4					3.4	—0.3	3.5	—0.3	
	S	30	4:34	10:40	16:53	23:10										E	W	30	5:30	11:42	17:54	. . .	
			3.1	0.0	3.4	—0.2													3.5	—0.3	3.5	. . .	
	S	31	5:22	11:30	17:42	23:59										○	Th	31	0:05	6:16	12:28	18:42	
			3.2	—0.1	3.5	—0.3													—0.3	3.5	—0.4	3.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Apia Mean Local Civil, for the meridian 171° 44′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:50	7:00	13:14	19:27		S	1	1:10	7:23	13:40	19:52		W	1	2:17	8:30	14:48	20:58
			—0.3	3.5	—0.3	3.4				0.0	3.3	0.0	3.0				0.4	2.9	0.3	2.6
	S	2	1:36	7:47	14:00	20:12		M	2	1:57	8:10	14:27	20:38		Th	2	3:04	9:16	15:34	21:47
			—0.2	3.4	—0.1	3.2				0.2	3.1	0.1	2.8				0.6	2.7	0.5	2.5
	S	3	2:22	8:35	14:51	21:03	S	Tu	3	2:45	8:58	15:17	21:30		F	3	3:55	10:05	16:20	22:36
			0.0	3.2	0.1	2.9				0.4	2.8	0.3	2.6				0.7	2.6	0.6	2.4
	M	4	3:13	9:26	15:45	22:00		W	4	3:37	9:50	16:10	22:25	A	S	4	4:47	10:57	17:12	23:30
			0.3	3.0	0.3	2.7				0.6	2.7	0.5	2.5				0.8	2.4	0.7	2.4
S	Tu	5	4:10	10:24	16:44	23:00		Th	5	4:36	10:48	17:05	23:25	☾	S	5	5:40	11:54	18:06	. . .
			0.5	2.8	0.4	2.5				0.7	2.6	0.6	2.4				0.8	2.4	0.7	. . .
	W	6	5:12	11:27	17:50	. . .		F	6	5:38	11:50	18:06	. . .		M	6	0:24	6:37	12:50	19:00
			0.6	2.6	0.6	. . .				0.8	2.5	0.7	. . .				2.4	0.8	2.4	0.7
☾	Th	7	0:09	6:21	12:32	18:55	☾	S	7	0:26	6:39	12:50	19:03	E	Tu	7	1:16	7:31	13:42	19:52
			2.4	0.7	2.6	0.6				2.4	0.8	2.5	0.7				2.5	0.7	2.4	0.6
	F	8	1:15	7:26	13:35	19:54	A	S	8	1:22	7:36	13:47	19:59		W	8	2:07	8:22	14:33	20:41
			2.4	0.7	2.6	0.6				2.4	0.8	2.5	0.6				2.6	0.6	2.5	0.6
	S	9	2:12	8:23	14:32	20:44		M	9	2:12	8:25	14:25	20:45		Th	9	2:55	9:19	15:20	21:26
			2.5	0.7	2.6	0.5				2.5	0.7	2.5	0.5				2.7	0.5	2.6	0.4
A	S	10	3:00	9:11	15:20	21:31	E	Tu	10	2:57	9:10	15:18	21:26		F	10	3:40	9:56	16:05	22:10
			2.6	0.6	2.7	0.5				2.6	0.5	2.6	0.5				2.9	0.3	2.8	0.3
	M	11	3:44	9:52	15:57	22:10		W	11	3:37	9:50	15:56	22:02		S	11	4:25	10:40	16:50	22:54
			2.7	0.5	2.8	0.4				2.8	0.4	2.7	0.4				3.0	0.2	2.9	0.3
	Tu	12	4:20	10:27	16:34	22:41		Th	12	4:15	10:30	16:34	22:40		S	12	5:07	11:24	17:33	23:37
			2.8	0.4	2.8	0.3				2.9	0.3	2.8	0.3				3.2	0.0	2.9	0.2
E	W	13	4:50	11:00	17:06	23:12		F	13	4:52	11:05	17:12	23:17	●	M	13	5:52	12:08	18:18	. . .
			2.9	0.3	2.9	0.3				3.0	0.2	2.9	0.3				3.2	0.0	3.0	. . .
	Th	14	5:22	11:32	17:38	23:45	●	S	14	5:29	11:43	17:51	23:55	N	Tu	14	0:22	6:36	12:57	19:06
			2.9	0.2	2.9	0.3				3.1	0.1	2.9	0.2				0.2	3.3	—0.1	3.0
●	F	15	5:55	12:07	18:14	. . .		S	15	6:10	12:24	18:32	. . .		W	15	1:10	7:25	13:47	19:55
			3.0	0.2	2.9	. . .				3.3	0.1	2.9	. . .				0.2	3.1	0.0	2.9
	S	16	0:20	6:30	12:43	18:50		M	16	0:36	6:52	13:08	19:15		Th	16	2:00	8:16	14:37	20:48
			0.3	3.0	0.2	2.9				0.3	3.1	0.1	2.9				0.2	3.1	0.0	2.9
	S	17	0:55	7:09	13:23	19:30	N	Tu	17	1:22	7:37	13:57	20:05	P	F	17	2:58	9:11	15:30	21:41
			0.3	3.0	0.2	2.8				0.3	3.1	0.1	2.8				0.3	3.0	0.1	2.9
	M	18	1:37	7:53	14:10	20:17		W	18	2:11	8:29	14:50	21:00		S	18	3:57	10:12	16:30	22:47
			0.4	2.9	0.2	2.8				0.4	3.0	0.2	2.8				0.3	3.0	0.2	2.9
	Tu	19	2:24	8:41	15:02	21:11		Th	19	3:10	9:25	15:48	22:00		S	19	4:58	11:13	17:32	23:50
			0.4	2.9	0.3	2.7				0.4	2.9	0.3	2.7				0.3	2.9	0.3	2.9
N	W	20	3:20	9:40	16:02	22:13		F	20	4:12	10:30	16:52	23:08	☽ E	M	20	6:05	12:20	18:33	. . .
			0.5	2.8	0.4	2.6				0.5	2.8	0.3	2.7				0.3	2.8	0.3	. . .
	Th	21	4:24	10:43	17:10	23:26	☽	S	21	5:20	11:36	18:00	. . .		Tu	21	0:55	7:12	13:26	19:37
			0.6	2.7	0.5	2.6				0.5	2.8	0.3	. . .				2.9	0.3	2.9	0.3
☽	F	22	5:37	11:55	18:19	. . .	P	S	22	0:15	6:28	12:42	19:02		W	22	1:55	8:16	14:29	20:37
			0.6	2.7	0.4	. . .				2.8	0.4	2.8	0.3				3.0	0.2	2.9	0.2
	S	23	0:36	6:49	13:05	19:26		M	23	1:20	7:34	13:48	20:00		Th	23	2:52	9:10	15:26	21:34
			2.6	0.5	2.8	0.3				2.9	0.3	2.9	0.2				3.1	0.1	3.0	0.1
	S	24	1:42	7:55	14:10	20:25	E	Tu	24	2:18	8:33	14:47	21:00		F	24	3:42	10:05	16:17	22:22
			2.8	0.3	2.9	0.2				3.0	0.1	3.0	0.1				3.2	0.0	3.0	0.1
	M	25	2:40	8:54	15:06	21:20		W	25	3:11	9:30	15:42	21:52		S	25	4:35	10:52	17:06	23:10
			3.0	0.1	3.1	0.0				3.2	0.0	3.2	0.0				3.3	0.0	3.0	0.1
P E	Tu	26	3:32	9:45	16:00	22:10		Th	26	4:02	10:20	16:32	22:40		S	26	5:18	11:37	17:50	23:57
			3.2	0.0	3.3	—0.1				3.3	—0.1	3.2	—0.1				3.3	0.0	3.0	0.1
	W	27	4:22	10:35	16:48	23:00		F	27	4:50	11:07	17:20	23:24	S ○	M	27	6:00	12:18	18:30	. . .
			3.4	—0.2	3.4	—0.2				3.4	—0.2	3.2	—0.1				3.2	0.0	2.9	. . .
	Th	28	5:10	11:22	17:35	23:43	○	S	28	5:34	11:51	18:03	. . .		Tu	28	0:32	6:42	13:00	19:08
			3.5	—0.3	3.4	—0.2				3.4	—0.2	3.1	. . .				0.2	3.1	0.1	2.8
○	F	29	5:55	12:07	18:20	. . .		S	29	0:07	6:18	12:36	18:47		W	29	1:12	7:21	13:40	19:48
			3.5	—0.3	3.3	. . .				0.0	3.3	—0.1	3.0				0.3	3.0	0.2	2.7
	S	30	0:27	6:38	12:52	19:05	S	M	30	0:50	7:02	13:20	19:30		Th	30	1:50	8:00	14:15	20:25
			—0.1	3.4	—0.2	3.2				0.1	3.2	0.0	2.9				0.5	2.9	0.3	2.6
								Tu	31	1:35	7:45	14:02	20:14							
										0.3	3.1	0.1	2.8							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (–) sign is before the height, in which case subtract it.

The time used is Apia Mean Local Civil, for the meridian 171° 44′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	2:28 0.6	8:40 2.7	14:53 0.4	21:02 2.6
A	S	2	3:12 0.7	9:19 2.6	15:32 0.6	21:46 2.5
	S	3	3:55 0.7	10:05 2.5	16:17 0.7	22:32 2.5
E	M	4	4:42 0.8	10:52 2.4	17:06 0.7	23:24 2.4
☾	Tu	5	5:35 0.8	11:48 2.4	18:02 0.8	. . . . . .
	W	6	0:20 2.5	6:35 0.8	12:46 2.4	19:00 0.7
	Th	7	1:17 2.6	7:35 0.6	13:47 2.4	20:00 0.6
	F	8	2:15 2.7	8:32 0.5	14:45 2.6	20:52 0.5
	S	9	3:07 2.9	9:27 0.3	15:38 2.7	21:44 0.3
	S	10	4:00 3.1	10:16 0.1	16:29 2.9	22:32 0.2
N	M	11	4:48 3.2	11:07 0.0	17:18 3.0	23:20 0.1
●	Tu	12	5:34 3.3	11:53 —0.1	18:04 3.1	. . . . . .
	W	13	0:10 0.0	6:22 3.4	12:40 —0.2	18:52 3.2
P	Th	14	0:58 0.0	7:10 3.4	13:28 —0.2	19:40 3.2
	F	15	1:50 0.0	8:02 3.3	14:19 —0.1	20:30 3.2
	S	16	2:42 0.0	8:54 3.2	15:11 0.0	21:24 3.1
E	S	17	3:35 0.1	9:49 3.1	16:06 0.1	22:21 3.0
	M	18	4:35 0.2	10:50 3.0	17:04 0.2	23:24 3.0
☽	Tu	19	5:40 0.3	11:53 2.8	18:06 0.3	. . . . .
	W	20	0:27 2.9	6:48 0.3	13:02 2.8	19:13 0.3
	Th	21	1:33 2.9	7:55 0.3	14:09 2.8	20:20 0.3
	F	22	2:33 3.0	8:56 0.2	15:15 2.8	21:17 0.3
	S	23	3:30 3.1	9:50 0.2	16:05 2.9	22:08 0.2
S	S	24	4:18 3.1	10:40 0.1	16:52 2.9	22:54 0.2
	M	25	5:02 3.2	11:22 0.1	17:34 2.9	23:36 0.2
○	Tu	26	5:45 3.1	12:00 0.1	18:10 2.9	. . . . . .
	W	27	0:14 0.3	6:22 3.1	12:37 0.2	18:46 2.8
	Th	28	0:48 0.3	6:56 3.0	13:10 0.3	19:21 2.8
	F	29	1:20 0.4	7:31 2.8	13:44 0.3	19:51 2.7
A	S	30	1:56 0.5	8:03 2.8	14:16 0.4	20:25 2.7
E	S	31	2:30 0.6	8:37 2.6	14:50 0.5	21:00 2.6

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
	M	1	3:08 0.6	9:17 2.5	15:29 0.6	21:41 2.6
	Tu	2	3:50 0.7	10:00 2.5	16:12 0.7	22:30 2.5
	W	3	4:44 0.7	10:50 2.5	17:06 0.7	23:50 2.5
☾	Th	4	5:48 0.7	11:56 2.4	18:11 0.8	. . . . . .
	F	5	0:35 2.6	6:57 0.7	13:07 2.4	19:22 0.7
	S	6	1:42 2.7	8:02 0.5	14:16 2.5	20:24 0.5
N	S	7	2:49 2.9	9:04 0.3	15:15 2.7	21:22 0.3
	M	8	3:37 3.1	9:57 0.1	16:08 2.9	22:17 0.1
	Tu	9	4:30 3.3	10:48 —0.1	17:00 3.1	23:06 0.0
	W	10	5:17 3.4	11:35 —0.2	17:46 3.3	23:43 —0.2
● P	Th	11	6:05 3.5	12:22 —0.3	18:32 3.4	. . . . . .
	F	12	0:42 —0.2	6:54 3.6	13:08 —0.3	19:20 3.4
	S	13	1:30 —0.2	7:43 3.4	13:56 —0.3	20:07 3.4
E	S	14	2:20 —0.2	8:32 3.3	14:45 —0.1	20:59 3.3
	M	15	3:11 0.0	9:25 3.2	15:38 0.0	21:54 3.1
	Tu	16	4:10 0.1	10:24 3.0	16:37 0.2	22:55 3.0
☽	W	17	5:14 0.3	11:28 2.8	17:41 0.4	. . . . . .
	Th	18	0:00 2.9	6:22 0.4	12:40 2.7	18:50 0.4
	F	19	1:10 2.8	7:32 0.4	13:50 2.7	20:00 0.4
S	S	20	2:14 2.9	8:37 0.3	14:54 2.7	21:00 0.4
	S	21	3:10 3.0	9:33 0.3	15:48 2.8	21:52 0.3
	M	22	4:00 3.0	10:20 0.2	16:32 2.9	22:38 0.3
	Tu	23	4:45 3.0	11:00 0.2	17:12 2.9	23:17 0.3
	W	24	5:25 3.0	11:40 0.2	17:47 2.9	23:57 0.3
○	Th	25	5:58 3.0	12:11 0.2	18:18 2.9	. . . . . .
A	F	26	0:22 0.3	6:30 2.9	12:41 0.3	18:47 2.8
	S	27	0:54 0.4	6:58 2.8	13:10 0.3	19:15 2.8
E	S	28	1:22 0.4	7:30 2.8	13:39 0.4	19:47 2.8
	M	29	1:55 0.4	8:02 2.7	14:14 0.5	20:23 2.7
	Tu	30	2:32 0.5	8:38 2.6	14:50 0.6	21:03 2.6
	W	31	3:15 0.5	9:21 2.5	15:31 0.6	21:51 2.6

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	4:08 0.7	10:14 2.5	16:26 0.7	22:51 2.5
☾	F	2	5:14 0.7	11:22 2.4	17:36 0.8	. . . . . .
	S	3	0:00 2.6	6:26 0.6	12:37 2.4	18:52 0.7
N	S	4	1:12 2.7	7:36 0.5	13:50 2.6	20:02 0.5
	M	5	2:18 2.8	8:40 0.3	14:54 2.8	21:00 0.3
	Tu	6	3:17 3.1	9:36 0.1	15:49 3.0	22:00 0.1
	W	7	4:10 3.3	10:27 —0.1	16:39 3.3	22:49 —0.1
	Th	8	5:00 3.5	11:14 —0.3	17:26 3.4	23:36 —0.3
P ●	F	9	5:48 3.6	12:02 —0.4	18:12 3.5	. . . . . .
E	S	10	0:25 —0.4	6:37 3.6	12:50 —0.4	19:00 3.5
	S	11	1:12 —0.4	7:23 3.5	13:35 —0.3	19:47 3.5
	M	12	2:00 —0.2	8:10 3.3	14:23 —0.1	20:36 3.3
	Tu	13	2:50 —0.1	9:02 3.1	15:15 0.1	21:28 3.1
	W	14	3:45 0.1	10:00 2.9	16:12 0.3	22:28 3.0
	Th	15	4:48 0.3	11:03 2.7	17:15 0.5	23:32 2.8
☽ S	F	16	5:57 0.4	12:14 2.6	18:26 0.5	. . . . . .
	S	17	0:42 2.7	7:06 0.5	13:25 2.6	19:34 0.5
	S	18	1:48 2.8	8:10 0.4	14:28 2.6	20:37 0.5
	M	19	2:46 2.8	9:04 0.4	15:20 2.7	21:30 0.4
	Tu	20	3:37 2.9	9:52 0.3	16:07 2.8	22:14 0.3
	W	21	4:22 2.9	10:34 0.3	16:45 2.9	22:52 0.3
A	Th	22	4:59 2.9	11:10 0.3	17:16 2.9	23:22 0.3
	F	23	5:30 2.9	11:38 0.3	17:45 2.9	23:53 0.3
E	S	24	5:59 2.9	12:07 0.3	18:15 2.9	. . . . . .
	S	25	0:22 0.3	6:27 2.8	12:35 0.3	18:42 2.9
	M	26	0:53 0.3	6:58 2.8	13:05 0.4	19:15 2.8
	Tu	27	1:27 0.3	7:31 2.7	13:38 0.4	19:52 2.8
	W	28	2:05 0.4	8:09 2.7	14:18 0.6	20:34 2.7
	Th	29	2:50 0.4	8:55 2.6	15:06 0.6	21:25 2.6
	F	30	3:47 0.5	9:52 2.5	16:00 0.7	22:25 2.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Apia Mean Local Civil, for the meridian 171° 44′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
N	S	1	4:51	11:00	17:11	23:34			Tu	1	0:17	6:50	13:06	19:20		E	Th	1	1:13	7:27	13:44	20:00	
			0.6	2.4	0.7	2.6					2.7	0.4	2.7	0.4					2.8	0.3	2.9	0.2	
☾	S	2	6:02	12:17	18:30	. . .			W	2	1:35	7:51	14:07	20:20		P	F	2	2:14	8:25	14:41	20:57	
			0.6	2.5	0.7	. . .					2.8	0.3	2.9	0.3					2.9	0.2	3.1	0.1	
	M	3	0:50	7:12	13:30	19:42			Th	3	2:33	8:47	15:02	21:16			S	3	3:12	9:22	15:34	21:51	
			2.7	0.5	2.6	0.5					3.0	0.1	3.1	0.1					3.1	0.0	3.3	—0.1	
	Tu	4	1:57	8:15	14:31	20:43		E	F	4	3:30	9:40	15:52	22:07			S	4	4:06	10:12	16:24	22:41	
			2.8	0.3	2.9	0.3					3.2	0.0	3.3	—0.1					3.2	—0.1	3.4	—0.2	
	W	5	2:57	9:14	15:26	21:38		P	S	5	4:21	10:32	16:42	22:57			M	5	4:55	11:00	17:11	23:30	
			3.1	0.1	3.1	0.0					3.3	—0.2	3.5	—0.3					3.2	—0.1	3.4	—0.2	
	Th	6	3:50	10:02	16:15	22:29			S	6	5:10	11:17	17:28	23:44		●	Tu	6	5:41	11:47	17:57	. . .	
			3.3	—0.1	3.3	—0.2					3.4	—0.2	3.5	—0.3					3.2	—0.1	3.4	. . .	
P E	F	7	4:40	10:52	17:05	23:17		●	M	7	5:57	12:05	18:15	. . .			W	7	0:15	6:27	12:32	18:42	
			3.4	—0.3	3.5	—0.3					3.4	—0.2	3.5	. . .					—0.2	3.1	0.0	3.4	
●	S	8	5:28	11:40	17:50	. . .			Tu	8	0:31	6:44	12:50	19:02		S	Th	8	1:02	7:12	13:16	19:27	
			3.5	—0.3	3.6	. . .					—0.3	3.3	—0.1	3.4					—0.1	3.0	0.1	3.2	
	S	9	0:04	6:15	12:24	18:36			W	9	1:19	7:32	13:37	19:49			F	9	1:45	7:57	14:02	20:14	
			—0.4	3.5	—0.3	3.6					—0.2	3.0	0.1	3.3					0.0	2.9	0.3	3.1	
	M	10	0:50	7:00	13:02	19:22		S	Th	10	2:06	8:20	14:25	20:38			S	10	2:32	8:45	14:50	21:02	
			—0.4	3.4	—0.2	3.5					0.0	3.0	0.2	3.1					0.2	2.8	0.4	2.9	
	Tu	11	1:37	7:50	13:59	20:12			F	11	2:58	9:12	15:20	21:31			S	11	3:18	9:32	15:40	21:50	
			—0.3	3.3	—0.1	3.3					0.1	2.8	0.4	2.9					0.3	2.6	0.6	2.7	
	W	12	2:28	8:40	14:50	21:02			S	12	3:51	10:05	16:16	22:30			M	12	4:07	10:22	16:32	22:43	
			—0.1	3.1	0.1	3.1					0.3	2.6	0.6	2.7					0.5	2.5	0.7	2.6	
	Th	13	3:25	9:35	15:45	22:00			S	13	4:48	11:05	17:17	23:30			Tu	13	4:56	11:14	17:25	23:37	
			0.1	2.8	0.4	2.9					0.4	2.5	0.7	2.6					0.6	2.5	0.8	2.4	
S	F	14	4:20	10:36	16:50	23:00		☽	M	14	5:47	12:07	18:20	. . .		☽ A	W	14	5:50	12:09	18:20	. . .	
			0.3	2.7	0.5	2.8					0.6	2.5	0.7	. . .					0.7	2.4	0.8	. . .	
☽	S	15	5:24	11:42	17:55	. . .			Tu	15	0:31	6:46	13:05	19:18		E	Th	15	0:32	6:45	13:00	19:15	
			0.4	2.6	0.6	. . .					2.5	0.6	2.5	0.7					2.4	0.7	2.5	0.8	
	S	16	0:06	6:30	12:50	19:02		A	W	16	1:30	7:40	13:57	20:10			F	16	1:27	7:36	13:51	20:07	
			2.7	0.5	2.5	0.6					2.5	0.6	2.5	0.6					2.4	0.7	2.5	0.7	
	M	17	1:13	7:35	13:52	20:03			Th	17	2:20	8:30	14:43	20:56			S	17	2:17	8:25	14:39	20:54	
			2.6	0.5	2.6	0.6					2.5	0.6	2.6	0.6					2.5	0.6	2.6	0.5	
	Tu	18	2:12	8:27	14:44	20:57		E	F	18	3:05	9:12	15:25	21:36			S	18	3:05	9:11	15:24	21:40	
			2.7	0.5	2.6	0.5					2.6	0.5	2.7	0.5					2.5	0.5	2.8	0.4	
	W	19	3:05	9:17	15:29	21:40			S	19	3:45	9:50	16:02	22:15			M	19	3:50	9:54	16:08	22:24	
			2.7	0.4	2.7	0.4					2.7	0.4	2.8	0.4					2.6	0.4	2.9	0.3	
A	Th	20	3:47	9:57	16:08	22:17			S	20	4:22	10:27	16:40	22:52			Tu	20	4:32	10:35	16:50	23:06	
			2.8	0.4	2.8	0.4					2.7	0.4	2.9	0.3					2.7	0.4	3.0	0.2	
E	F	21	4:24	10:31	16:40	22:50			M	21	5:00	11:02	17:15	23:28			W	21	5:15	11:18	17:32	23:50	
			2.8	0.4	2.8	0.4					2.8	0.4	3.0	0.2					2.8	0.3	3.1	0.1	
	S	22	4:56	11:00	17:12	23:22		○	Tu	22	5:35	11:38	17:52	. . .		○ N	Th	22	5:58	12:01	18:15	. . .	
			2.8	0.3	2.9	0.3					2.8	0.3	3.0	. . .					2.9	0.2	3.2	. . .	
○	S	23	5:27	11:32	17:42	23:55			W	23	0:07	6:13	12:17	18:31			F	23	0:34	6:42	12:46	19:01	
			2.8	0.3	2.9	0.2					0.1	2.8	0.3	3.1					0.0	3.0	0.2	3.2	
	M	24	6:00	12:03	18:14	. . .			Th	24	0:49	6:55	13:00	19:15			S	24	1:20	7:29	13:34	19:50	
			2.9	0.3	3.0	. . .					0.1	2.8	0.3	3.0					0.0	3.0	0.2	3.1	
	Tu	25	0:28	6:32	12:37	18:50		N	F	25	1:35	7:40	13:44	20:02			S	25	2:09	8:19	14:26	20:40	
			0.2	2.8	0.4	3.0					0.1	2.8	0.4	3.0					0.0	3.0	0.3	3.1	
	W	26	1:08	7:10	13:14	19:30			S	26	2:23	8:30	14:37	20:56			M	26	3:00	9:12	15:24	21:36	
			0.2	2.8	0.4	2.9					0.2	2.8	0.4	2.9					0.0	2.9	0.3	3.0	
	Th	27	1:47	7:50	13:57	20:16			S	27	3:16	9:27	15:37	21:54		P	Tu	27	3:55	10:11	16:21	22:36	
			0.3	2.7	0.5	2.8					0.3	2.7	0.5	2.7					0.2	2.9	0.3	2.9	
N	F	28	2:36	8:40	14:48	21:08			M	28	4:16	10:30	16:41	22:59		E	W	28	4:54	11:12	17:26	23:40	
			0.3	2.7	0.6	2.8					0.3	2.7	0.5	2.8					0.3	2.9	0.4	2.8	
	S	29	3:30	9:39	15:49	22:07		☾	Tu	29	5:18	11:38	17:48	. . .		☾	Th	29	5:57	12:17	18:35	. . .	
			0.4	2.6	0.6	2.7					0.4	2.7	0.5	. . .					0.3	2.9	0.3	. . .	
	S	30	4:33	10:46	16:58	23:17			W	30	0:05	6:22	12:42	18:55			F	30	0:47	7:00	13:20	19:40	
			0.5	2.5	0.7	2.7					2.8	0.3	2.8	0.4					2.8	0.3	2.9	0.3	
☾	M	31	5:41	11:57	18:10	. . .											S	31	1:53	8:05	14:20	20:41	
			0.5	2.6	0.6	. . .													2.8	0.2	3.1	0.2	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Apia Mean Local Civil, for the meridian 171° 44′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m), all greater are in the afternoon (p. m) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator: N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	1:54 3.4	8:00 0.2	14:20 3.3	20:15 0.3
N	S	2	2:47 3.6	8:54 0.1	15:15 3.4	21:07 0.2
○	S	3	3:41 3.7	9:47 0.1	16:07 3.4	22:01 0.2
P	M	4	4:36 3.8	10:43 0.0	17:02 3.5	23:00 0.1
	Tu	5	5:30 3.9	11:41 —0.1	18:00 3.6	23:56 0.0
	W	6	6:26 3.9	12:36 —0.1	18:56 3.7	. . . . . .
	Th	7	0:55 0.0	7:22 4.0	13:32 —0.2	19:52 3.8
	F	8	1:52 —0.1	8:20 4.0	14:27 —0.2	20:48 3.8
E	S	9	2:50 —0.2	9:14 4.0	15:20 —0.2	21:44 3.9
☾	S	10	3:47 —0.2	10:10 4.0	16:15 —0.3	22:39 4.0
	M	11	4:42 —0.2	11:04 4.0	17:08 —0.2	23:32 4.0
	Tu	12	5:36 —0.1	11:57 3.9	18:00 —0.1	. . . . . .
	W	13	0:26 3.9	6:31 0.0	12:52 3.8	18:54 0.0
	Th	14	1:17 3.9	7:23 0.0	13:47 3.6	19:45 0.1
S	F	15	2:10 3.8	8:17 0.1	14:39 3.5	20:36 0.2
	S	16	3:01 3.7	9:09 0.3	15:30 3.4	21:26 0.4
	S	17	3:51 3.6	10:00 0.4	16:22 3.2	22:15 0.5
●	M	18	4:42 3.5	10:50 0.5	17:14 3.1	23:04 0.6
	Tu	19	5:32 3.4	11:37 0.6	18:03 3.0	23:50 0.7
A	W	20	6:18 3.3	12:25 0.6	18:50 3.0	. . . . . .
	Th	21	0:36 0.8	7:06 3.2	13:10 0.7	19:33 3.0
	F	22	1:20 0.8	7:51 3.2	13:53 0.7	20:16 3.0
E	S	23	2:04 0.7	8:35 3.2	14:35 0.6	20:57 3.0
	S	24	2:47 0.6	9:19 3.2	15:13 0.6	21:38 3.1
	M	25	3:32 0.5	10:02 3.2	15:57 0.5	22:20 3.2
☽	Tu	26	4:19 0.4	10:44 3.2	16:41 0.4	23:05 3.3
	W	27	5:05 0.4	11:30 3.3	17:24 0.4	23:52 3.5
	Th	28	5:55 0.2	12:16 3.3	18:11 0.3	. . . . . .
	F	29	0:40 3.6	6:45 0.2	13:05 3.4	19:00 0.2
N	S	30	1:30 3.7	7:37 0.1	13:54 3.4	19:49 0.2
	S	31	2:22 3.7	8:29 0.1	14:46 3.4	20:43 0.1

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	M	1	3:16 3.8	9:24 0.0	15:42 3.5	21:39 0.1
○ P	Tu	2	4:11 3.8	10:20 0.0	16:37 3.5	22:37 0.1
	W	3	5:07 3.9	11:15 0.0	17:35 3.6	23:36 0.0
	Th	4	6:05 3.9	12:12 0.0	18:35 3.7	. . . . . .
E	F	5	0:35 0.0	7:02 3.9	13:10 —0.1	19:31 3.8
	S	6	1:35 —0.1	8:00 3.9	14:07 —0.1	20:29 3.8
	S	7	2:32 —0.1	8:55 3.9	15:00 —0.2	21:24 3.9
☾	M	8	3:26 —0.1	9:50 3.9	15:54 —0.2	22:18 3.9
	Tu	9	4:21 —0.1	10:44 3.9	16:46 —0.1	23:10 3.9
	W	10	5:14 —0.1	11:36 3.8	17:36 —0.1	. . . . . .
	Th	11	0:00 3.9	6:06 0.0	12:26 3.7	18:25 0.0
S	F	12	0:50 3.8	6:55 0.1	13:18 3.6	19:14 0.2
	S	13	1:40 3.7	7:45 0.2	14:07 3.4	20:02 0.3
	S	14	2:29 3.6	8:32 0.3	14:59 3.3	20:50 0.5
	M	15	3:17 3.5	9:23 0.5	15:47 3.1	21:38 0.6
A ●	Tu	16	4:06 3.3	10:10 0.6	16:35 3.0	22:24 0.7
	W	17	4:56 3.3	10:59 0.7	17:24 3.0	23:12 0.8
	Th	18	5:45 3.2	11:47 0.7	18:10 2.9	23:59 0.8
E	F	19	6:32 3.1	12:33 0.7	18:57 3.0	. . . . . .
	S	20	0:47 0.7	7:21 3.1	13:19 0.7	19:40 3.0
	S	21	1:35 0.6	8:07 3.2	14:02 0.6	20:25 3.1
	M	22	2:22 0.5	8:52 3.2	14:47 0.5	21:11 3.3
	Tu	23	3:10 0.4	9:38 3.3	15:30 0.4	21:55 3.4
☽	W	24	3:56 0.3	10:22 3.3	16:17 0.3	22:41 3.6
	Th	25	4:45 0.2	11:06 3.4	17:00 0.2	23:30 3.7
N	F	26	5:33 0.1	11:54 3.5	17:49 0.1	. . . . . .
	S	27	0:19 3.7	6:24 0.0	12:42 3.5	18:37 0.0
	S	28	1:10 3.8	7:15 0.0	13:33 3.5	19:30 0.1
	M	29	2:01 3.8	8:07 0.0	14:25 3.5	20:24 0.1

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Tu	1	2:55 3.8	9:02 0.0	15:20 3.5	21:20 0.1
P ○	W	2	3:51 3.8	9:57 0.0	16:18 3.6	22:20 0.1
E	Th	3	4:48 3.8	10:55 0.0	17:17 3.6	23:20 0.0
	F	4	5:47 3.8	11:52 0.0	18:15 3.7	. . . . . .
	S	5	0:20 0.0	6:45 3.8	12:50 0.0	19:12 3.8
	S	6	1:17 0.0	7:41 3.8	13:46 0.0	20:08 3.8
	M	7	2:13 0.0	8:37 3.8	14:40 0.0	21:02 3.9
	Tu	8	3:08 —0.1	9:30 3.8	15:31 0.0	21:53 3.9
☾	W	9	3:59 0.0	10:20 3.8	16:21 0.0	22:43 3.9
S	Th	10	4:48 0.0	11:10 3.7	17:10 0.1	23:32 3.8
	F	11	5:37 0.1	11:59 3.6	17:55 0.1	. . . . . .
	S	12	0:20 3.7	6:22 0.2	12:45 3.4	18:41 0.3
	S	13	1:06 3.6	7:10 0.3	13:32 3.3	19:27 0.4
A	M	14	1:53 3.5	7:55 0.4	14:18 3.2	20:10 0.5
	Tu	15	2:40 3.3	8:42 0.5	15:05 3.1	20:56 0.6
	W	16	3:28 3.2	9:29 0.6	15:52 3.0	21:45 0.7
●	Th	17	4:18 3.2	10:17 0.7	16:40 3.0	22:34 0.7
E	F	18	5:08 3.1	11:07 0.7	17:30 3.0	23:27 0.7
	S	19	6:00 3.1	11:55 0.7	18:18 3.1	. . . . . .
	S	20	0:17 0.6	6:50 3.2	12:42 0.6	19:06 3.2
	M	21	1:07 0.5	7:37 3.2	13:30 0.5	19:53 3.3
	Tu	22	1:58 0.3	8:25 3.3	14:18 0.4	20:42 3.5
	W	23	2:47 0.2	9:12 3.4	15:05 0.3	21:30 3.6
	Th	24	3:35 0.1	9:58 3.5	15:52 0.2	22:19 3.7
N ☽	F	25	4:23 0.0	10:44 3.6	16:39 0.1	23:06 3.8
	S	26	5:12 0.0	11:32 3.6	17:29 0.0	23:56 3.9
	S	27	6:02 —0.1	12:22 3.6	18:20 0.0	. . . . . .
	M	28	0:49 3.9	6:53 0.0	13:13 3.6	19:12 0.0
	Tu	29	1:42 3.8	7:45 0.0	14:07 3.6	20:08 0.0
P	W	30	2:37 3.8	8:40 0.0	15:03 3.6	21:06 0.0
E	Th	31	3:33 3.7	9:37 0.1	16:00 3.6	22:05 0.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is New Zealand Standard, 172° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
☾	F	1	4:31 3.7	10:36 0.1	17:00 3.7	23:05 0.1	
	S	2	5:31 3.7	11:34 0.1	17:57 3.7	. . . . .	
	S	3	0:02 0.1	6:27 3.7	12:30 0.1	18:54 3.7	
	M	4	1:00 0.0	7:22 3.7	13:25 0.1	19:48 3.8	
	Tu	5	1:54 0.0	8:17 3.7	14:17 0.1	20:39 3.8	
S	W	6	2:45 0.0	9:07 3.6	15:06 0.1	21:27 3.8	
	Th	7	3:33 0.1	9:55 3.6	15:52 0.2	22:16 3.7	
☾	F	8	4:20 0.1	10:43 3.5	16:39 0.3	23:00 3.7	
	S	9	5:05 0.2	11:28 3.4	17:20 0.3	23:46 3.6	
	S	10	5:48 0.3	12:12 3.3	18:04 0.4	. . . . .	
A	M	11	0:30 3.4	6:31 0.4	12:55 3.2	18:47 0.5	
	Tu	12	1:16 3.3	7:15 0.5	13:39 3.1	19:30 0.6	
	W	13	2:02 3.2	7:59 0.6	14:23 3.0	20:17 0.6	
E	Th	14	2:50 3.1	8:45 0.7	15:10 3.0	21:09 0.6	
	F	15	3:40 3.1	9:34 0.7	16:00 3.0	21:58 0.6	
●	S	16	4:30 3.1	10:24 0.7	16:48 3.1	22:52 0.5	
	S	17	5:22 3.1	11:14 0.6	17:40 3.2	23:45 0.4	
	M	18	6:14 3.2	12:06 0.5	18:32 3.4	. . . . .	
	Tu	19	0:38 0.3	7:06 3.3	12:56 0.4	19:22 3.5	
	W	20	1:29 0.1	7:54 3.4	13:47 0.3	20:13 3.7	
N	Th	21	2:20 0.0	8:44 3.5	14:36 0.2	21:04 3.8	
	F	22	3:10 —0.1	9:31 3.6	15:25 0.1	21:52 3.9	
☽	S	23	4:00 —0.1	10:20 3.7	16:18 0.0	22:45 3.9	
	S	24	4:49 —0.1	11:10 3.7	17:10 —0.1	23:36 3.9	
	M	25	5:40 —0.1	12:02 3.7	18:02 —0.1	. . . . .	
	Tu	26	0:28 3.9	6:32 —0.1	12:57 3.7	18:56 —0.1	
P E	W	27	1:24 3.8	7:27 0.0	13:50 3.7	19:54 0.0	
	Th	28	2:20 3.8	8:21 0.0	14:48 3.7	20:52 0.0	
	F	29	3:17 3.7	9:19 0.1	15:45 3.7	21:50 0.1	
○	S	30	4:16 3.6	10:17 0.1	16:42 3.7	22:50 0.1	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	5:13 3.6	11:15 0.2	17:38 3.7	23:46 0.1	
	M	2	6:09 3.6	12:09 0.2	18:32 3.7	. . . . .	
	Tu	3	0:42 0.1	7:03 3.5	13:02 0.2	19:25 3.7	
S	W	4	1:32 0.1	7:55 3.5	13:52 0.3	20:13 3.7	
	Th	5	2:21 0.2	8:44 3.5	14:40 0.3	21:02 3.6	
	F	6	3:07 0.2	9:30 3.4	15:24 0.4	21:48 3.6	
☾	S	7	3:50 0.3	10:15 3.3	16:05 0.5	22:30 3.5	
	S	8	4:33 0.4	10:57 3.2	16:47 0.5	23:13 3.4	
A	M	9	5:13 0.5	11:37 3.2	17:30 0.5	23:56 3.3	
	Tu	10	5:55 0.5	12:19 3.1	18:10 0.6	. . . . .	
E	W	11	0:40 3.2	6:35 0.6	13:00 3.1	18:54 0.6	
	Th	12	1:26 3.1	7:20 0.6	13:45 3.1	19:43 0.6	
	F	13	2:13 3.1	8:05 0.6	14:33 3.1	20:33 0.5	
	S	14	3:02 3.1	8:55 0.6	15:22 3.2	21:26 0.5	
●	S	15	3:53 3.1	9:46 0.6	16:14 3.3	22:20 0.4	
	M	16	4:45 3.2	10:40 0.5	17:07 3.4	23:15 0.3	
	Tu	17	5:38 3.3	11:32 0.4	18:06 3.6	. . . . .	
N	W	18	0:10 0.1	6:31 3.4	12:24 0.3	18:53 3.7	
	Th	19	1:02 0.0	7:23 3.5	13:16 0.2	19:46 3.8	
	F	20	1:55 —0.1	8:15 3.6	14:09 0.1	20:37 3.9	
	S	21	2:46 —0.1	9:05 3.7	15:03 0.0	21:30 4.0	
☽	S	22	3:37 —0.2	9:59 3.8	15:57 —0.1	22:22 4.0	
P	M	23	4:28 —0.2	10:50 3.8	16:50 —0.1	23:14 4.0	
	Tu	24	5:20 —0.2	11:44 3.9	17:45 —0.1	. . . . .	
E	W	25	0:10 3.9	6:16 —0.2	12:39 3.9	18:42 —0.1	
	Th	26	1:06 3.8	7:08 —0.1	13:34 3.8	19:39 0.0	
	F	27	2:03 3.7	8:05 0.0	14:30 3.8	20:37 0.0	
	S	28	3:00 3.7	9:00 0.1	15:27 3.8	21:34 0.1	
☾	S	29	3:56 3.6	9:56 0.1	16:22 3.8	22:31 0.1	
	M	30	4:53 3.5	10:50 0.2	17:16 3.7	23:26 0.2	
S	Tu	31	5:49 3.5	11:45 0.3	18:10 3.7	. . . . .	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	0:18 0.2	6:42 3.4	12:37 0.4	19:00 3.6	
	Th	2	1:07 0.3	7:31 3.3	13:25 0.5	19:47 3.6	
	F	3	1:57 0.3	8:20 3.3	14:10 0.5	20:34 3.5	
	S	4	2:40 0.4	9:04 3.2	14:54 0.6	21:17 3.4	
A	S	5	3:22 0.5	9:46 3.1	15:35 0.6	22:00 3.3	
☾	M	6	4:02 0.5	10:27 3.1	16:16 0.6	22:42 3.2	
	Tu	7	4:41 0.6	11:06 3.1	16:56 0.6	23:24 3.2	
E	W	8	5:20 0.6	11:45 3.1	17:38 0.6	. . . . .	
	Th	9	0:08 3.1	6:02 0.6	12:26 3.1	18:24 0.6	
	F	10	0:50 3.1	6:46 0.6	13:12 3.2	19:11 0.5	
	S	11	1:40 3.1	7:32 0.5	14:00 3.3	20:02 0.4	
	S	12	2:27 3.1	8:20 0.5	14:50 3.4	20:55 0.3	
	M	13	3:18 3.2	9:10 0.5	15:42 3.5	21:50 0.2	
●	Tu	14	4:11 3.3	10:02 0.4	16:36 3.6	22:43 0.1	
N	W	15	5:08 3.3	10:53 0.3	17:30 3.7	23:40 0.1	
	Th	16	6:00 3.4	11:53 0.2	18:25 3.8	. . . . .	
	F	17	0:34 0.0	6:54 3.6	12:50 0.1	19:20 3.9	
P	S	18	1:27 —0.1	7:48 3.7	13:46 0.0	20:13 4.0	
	S	19	2:21 —0.2	8:42 3.8	14:42 —0.1	21:08 4.0	
	M	20	3:15 —0.2	9:37 3.9	15:38 —0.1	22:02 4.0	
☽ E	Tu	21	4:08 —0.2	10:32 3.9	16:34 —0.2	22:57 4.0	
	W	22	5:02 —0.2	11:25 4.0	17:29 —0.2	23:52 3.9	
	Th	23	5:55 —0.2	12:20 4.0	18:26 —0.1	. . . . .	
	F	24	0:48 3.9	6:50 —0.1	13:15 3.9	19:21 —0.1	
	S	25	1:45 3.8	7:45 0.0	14:10 3.9	20:18 0.0	
	S	26	2:40 3.7	8:40 0.1	15:05 3.9	21:13 0.1	
	M	27	3:36 3.6	9:32 0.2	15:57 3.8	22:07 0.2	
S ○	Tu	28	4:28 3.5	10:25 0.3	16:52 3.7	23:00 0.3	
	W	29	5:22 3.3	11:17 0.4	17:42 3.6	23:50 0.4	
	Th	30	6:15 3.3	12:06 0.5	18:31 3.5	. . . . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 1.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case substract it.

The time used is New Zealand Standard, 172° 30′ E.; 0^h is midnight, 12^h is noon: all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| JULY. | | |

| OCTOBER. | | |

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	4:49	10:57	17:10	23:37			M	1	0:12	6:18	12:42	18:40			Tu	1	5:57	12:27	18:20	. . .	
			5.8	1.0	6.0	0.5					0.3	6.4	0.7	6.2		P			6.3	0.6	6.2	. . .	
N	S	2	5:46	12:00	18:05	. . .		○ P	Tu	2	1:08	7:12	13:39	19:32		○	W	2	0:50	6:52	13:22	19:16	
			6.1	0.8	6.1	. . .					0.1	6.6	0.4	6.4					0.2	6.6	0.3	6.4	
○	S	3	0:32	6:40	13:00	19:00			W	3	2:00	8:05	14:31	20:24		E	Th	3	1:42	7:43	14:13	20:07	
			0.2	6.4	0.6	6.3					—0.1	6.8	0.2	6.6					0.0	6.8	0.1	6.6	
	M	4	1:24	7:32	13:52	19:50			Th	4	2:50	8:55	15:22	21:16			F	4	2:34	8:35	15:00	20:57	
			0.0	6.6	0.5	6.4					—0.2	6.9	0.1	6.6					—0.1	6.9	0.0	6.7	
P	Tu	5	2:13	8:23	14:43	20:42		E	F	5	3:39	9:44	16:10	22:06			S	5	3:22	9:22	15:50	21:46	
			—0.1	6.8	0.3	6.5					—0.1	6.9	0.1	6.5					—0.1	6.9	0.0	6.6	
	W	6	3:05	9:13	15:35	21:32			S	6	4:29	10:34	17:00	22:57			S	6	4:10	10:09	16:38	22:35	
			—0.1	6.9	0.3	6.5					0.0	6.8	0.2	6.4					0.0	6.8	0.1	6.4	
	Th	7	3:53	10:08	16:27	22:25			S	7	5:20	11:22	17:52	23:48			M	7	4:58	10:58	17:25	23:22	
			—0.1	6.9	0.3	6.4					0.2	6.6	0.4	6.1					0.3	6.5	0.3	6.2	
	F	8	4:43	10:54	17:20	23:16		☾	M	8	6:11	12:13	18:47	. . .			Tu	8	5:48	11:45	18:15	. . .	
			0.0	6.7	0.4	6.2					0.6	6.3	0.6	. . .					0.7	6.2	0.6	. . .	
E	S	9	5:38	11:46	18:16	. . .			Tu	9	0:41	7:10	13:05	19:45		☾	W	9	0:13	6:42	12:35	19:12	
			0.3	6.5	0.5	. . .					5.8	0.9	5.9	0.8					5.9	1.0	5.8	0.9	
☾	S	10	0:11	6:34	12:40	19:14			W	10	1:37	8:11	14:00	20:49		S	Th	10	1:05	7:42	13:28	20:12	
			6.0	0.6	6.3	0.7					5.5	1.2	5.6	1.0					5.6	1.3	5.5	1.2	
	M	11	1:07	7:32	13:35	20:16			Th	11	2:35	9:21	14:58	21:49			F	11	2:02	8:50	14:25	21:19	
			5.7	0.9	6.0	0.8					5.3	1.4	5.4	1.2					5.3	1.5	5.2	1.3	
	Tu	12	2:05	8:40	14:31	21:18		S	F	12	3:33	10:27	15:54	22:52			S	12	2:59	9:59	15:22	22:20	
			5.5	1.2	5.7	0.9					5.2	1.5	5.2	1.1					5.1	1.6	5.0	1.3	
	W	13	3:05	9:49	15:28	22:22			S	13	4:33	11:27	16:50	23:46			S	13	3:57	10:59	16:22	23:20	
			5.3	1.3	5.5	0.9					5.1	1.4	5.1	1.0					5.0	1.5	5.0	1.2	
	Th	14	4:05	10:54	16:23	23:17			S	14	5:26	12:21	17:43	. . .		A	M	14	4:52	11:50	17:14	. . .	
			5.3	1.3	5.4	0.9					5.2	1.3	5.1	. . .					5.1	1.4	5.0	. . .	
S	F	15	5:02	11:50	17:17	. . .			M	15	0:35	6:14	13:06	18:30			Tu	15	0:07	5:41	12:35	18:08	
			5.3	1.2	5.3	. . .		A			0.9	5.3	1.3	5.3					1.1	5.3	1.3	5.2	
	S	16	0:10	5:55	12:44	18:07		●	Tu	16	1:18	6:58	13:46	19:12			W	16	0:51	6:25	13:11	18:45	
			0.8	5.4	1.2	5.4					0.9	5.5	1.2	5.4					1.0	5.5	1.2	5.4	
	S	17	0:57	6:42	13:29	18:55			W	17	1:53	7:37	14:30	19:54		●	Th	17	1:23	7:06	13:45	19:25	
			0.7	5.5	1.2	5.5					0.9	5.7	1.2	5.5					1.0	5.7	1.1	5.6	
●	M	18	1:40	7:26	14:11	19:38			Th	18	2:22	8:16	14:47	20:31		E	F	18	1:51	7:45	14:12	20:03	
			0.8	5.6	1.2	5.5					0.9	5.8	1.1	5.6					1.0	5.9	0.9	5.8	
	Tu	19	2:17	8:06	14:46	20:17		E	F	19	2:48	8:53	15:15	21:10			S	19	2:21	8:23	14:41	20:43	
			0.8	5.7	1.2	5.5					0.9	6.0	1.0	5.8					0.8	6.1	0.7	6.0	
A	W	20	2:48	8:45	15:14	20:57			S	20	3:22	9:31	15:42	21:50			S	20	2:50	9:02	15:11	21:24	
			0.8	5.8	1.2	5.6					0.8	6.1	0.8	5.8					0.7	6.2	0.5	6.1	
	Th	21	3:17	9:22	15:42	21:36			S	21	3:52	10:12	16:12	22:30			M	21	3:27	9:44	15:48	22:05	
			0.9	5.9	1.1	5.6					0.7	6.2	0.6	5.9					0.6	6.3	0.4	6.2	
	F	22	3:45	10:00	16:10	22:14			M	22	4:25	10:55	16:56	23:14			Tu	22	4:00	10:27	16:31	22:50	
			0.9	6.0	1.0	5.6					0.6	6.2	0.6	5.9					0.5	6.2	0.4	6.2	
E	S	23	4:16	10:41	16:46	22:56			Tu	23	5:18	11:38	17:39	. . .			W	23	4:46	11:10	17:12	23:37	
			0.8	6.0	0.9	5.6					0.6	6.1	0.6	. . .					0.5	6.2	0.4	6.1	
	S	24	4:52	11:24	17:22	23:41		☽	W	24	0:02	5:54	12:27	18:27			Th	24	5:31	12:00	18:02	. . .	
			0.8	6.0	0.8	5.6					5.9	0.7	6.0	0.6					0.6	6.0	0.5	. . .	
	M	25	5:34	12:09	18:10	. . .			Th	25	0:54	6:47	13:18	19:22		N	F	25	0:31	6:26	12:54	18:58	
			0.8	6.0	0.8	. . .					5.8	0.8	5.8	0.7		☽			6.0	0.8	5.8	0.7	
☽	Tu	26	0:30	6:20	12:57	19:00		N	F	26	1:51	7:44	14:17	20:27			S	26	1:29	7:26	13:54	20:02	
			5.6	0.8	5.9	0.8					5.8	1.0	5.7	0.8					5.9	1.0	5.7	0.8	
	W	27	1:22	7:12	13:49	19:57			S	27	2:51	8:54	15:17	21:36			S	27	2:27	8:37	14:55	21:15	
			5.6	1.0	5.8	0.8					5.7	1.1	5.7	0.8					5.8	1.1	5.6	0.9	
	Th	28	2:20	8:12	14:44	20:59			S	28	3:54	10:10	16:20	22:50			M	28	3:31	9:58	16:00	22:30	
			5.6	1.0	5.7	0.8					5.8	1.1	5.8	0.7					5.9	1.1	5.7	0.8	
	F	29	3:19	9:18	15:42	22:02			M	29	4:57	11:27	17:22	23:54			Tu	29	4:35	11:10	17:04	23:36	
			5.7	1.1	5.8	0.8					6.0	0.9	5.9	0.5					6.0	0.9	5.9	0.6	
N	S	30	4:20	10:30	16:43	23:12										P	W	30	5:34	12:11	18:01	. . .	
			5.8	1.1	5.9	0.6													6.2	0.6	6.1	. . .	
	S	31	5:20	11:40	17:42	. . .										E	Th	31	0:35	6:30	13:06	18:56	
			6.1	0.9	6.0	. . .													0.3	6.5	0.3	6.3	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is New Zealand Standard, for the meridian 172° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	F	1	1:27	7:21	13:55	19:47	
			0.2	6.6	0.0	6.5	
	S	2	2:16	8:10	14:41	20:35	
			0.0	6.7	0.0	6.6	
	S	3	3:05	8:57	15:26	21:23	
			0.1	6.7	0.0	6.6	
	M	4	3:50	9:45	16:10	22:10	
			0.2	6.6	0.1	6.4	
	Tu	5	4:36	10:30	16:57	22:56	
			0.5	6.3	0.3	6.2	
S	W	6	5:24	11:16	17:44	23:44	
			0.8	6.0	0.7	5.9	
	Th	7	6:14	12:04	18:35	. . .	
			1.1	5.7	1.0	. . .	
☾	F	8	0:34	7:07	12:55	19:30	
			5.6	1.4	5.3	1.3	
	S	9	1:27	8:13	13:50	20:31	
			5.3	1.6	5.1	1.5	
	S	10	2:21	9:20	14:47	21:37	
			5.2	1.7	4.9	1.5	
A	M	11	3:17	10:19	15:45	22:38	
			5.1	1.6	4.9	1.5	
	Tu	12	4:12	11:10	16:38	23:27	
			5.2	1.5	5.0	1.4	
	W	13	5:03	11:56	17:27	. . .	
			5.3	1.4	5.2	. . .	
E	Th	14	0:10	5:48	12:32	18:12	
			1.3	5.5	1.2	5.4	
	F	15	0:43	6:30	13:07	18:55	
			1.2	5.7	1.0	5.6	
●	S	16	1:16	7:11	13:40	19:36	
			1.0	6.0	0.7	5.9	
	S	17	1:50	7:54	14:11	20:17	
			0.8	6.1	0.5	6.1	
	M	18	2:27	8:35	14:46	21:00	
			0.7	6.2	0.3	6.3	
	Tu	19	3:00	9:17	15:26	21:45	
			0.5	6.3	0.2	6.3	
	W	20	3:45	10:02	16:06	22:30	
			0.5	6.3	0.2	6.4	
N	Th	21	4:27	10:50	16:54	23:20	
			0.5	6.2	0.3	6.3	
	F	22	5:17	11:40	17:43	. . .	
			0.6	6.0	0.5	. . .	
☽	S	23	0:12	6:12	12:34	18:40	
			6.2	0.8	5.8	0.7	
	S	24	1:08	7:18	13:32	19:45	
			6.0	1.0	5.6	0.9	
	M	25	2:10	8:30	14:38	21:00	
			5.9	1.1	5.6	1.0	
	Tu	26	3:12	9:47	15:41	22:11	
			5.9	1.0	5.6	0.9	
P E	W	27	4:13	10:54	16:45	23:17	
			6.0	0.8	5.8	0.8	
	Th	28	5:10	11:52	17:41	. . .	
			6.1	0.5	6.0	. . .	
	F	29	0:16	6:06	12:45	18:35	
			0.6	6.3	0.3	6.2	
○	S	30	1:10	6:57	13:32	19:26	
			0.4	6.4	0.1	6.4	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	1:57	7:45	14:17	20:13	
			0.4	6.4	0.1	6.4	
	M	2	2:45	8:31	15:02	21:00	
			0.4	6.4	0.1	6.4	
	Tu	3	3:31	9:18	15:47	21:46	
			0.5	6.3	0.2	6.3	
S	W	4	4:15	10:02	16:30	22:31	
			0.7	6.0	0.5	6.1	
	Th	5	4:59	10:48	17:13	23:16	
			0.9	5.8	0.7	5.9	
	F	6	5:44	11:34	18:57	. . .	
			1.2	5.5	1.0	. . .	
☾	S	7	0:04	6:40	12:22	18:50	
			5.7	1.4	5.2	1.3	
	S	8	0:52	7:30	13:13	19:39	
			5.5	1.6	5.0	1.5	
A	M	9	1:42	8:29	14:07	20:34	
			5.3	1.7	4.9	1.7	
	Tu	10	2:33	9:25	15:02	21:35	
			5.3	1.6	4.9	1.7	
E	W	11	3:26	10:16	15:55	22:28	
			5.3	1.5	5.0	1.6	
	Th	12	4:17	11:04	16:47	23:20	
			5.4	1.3	5.2	1.5	
	F	13	5:06	11:46	17:35	. . .	
			5.6	1.1	5.4	. . .	
	S	14	0:00	5:52	12:25	18:22	
			1.3	5.8	0.8	5.7	
●	S	15	0:42	6:38	13:06	19:07	
			1.0	6.0	0.6	6.0	
	M	16	1:20	7:25	13:42	19:58	
			0.8	6.1	0.4	6.3	
	Tu	17	2:00	8:09	14:24	20:37	
			0.6	6.2	0.2	6.4	
N	W	18	2:45	8:56	15:09	21:24	
			0.5	6.3	0.2	6.5	
	Th	19	3:30	9:42	15:52	22:14	
			0.5	6.3	0.2	6.5	
	F	20	4:18	10:31	16:40	23:04	
			0.5	6.2	0.2	6.5	
	S	21	5:11	11:24	17:33	23:56	
			0.6	6.0	0.4	6.3	
☽	S	22	6:07	12:18	18:31	. . .	
			0.8	5.8	0.6	. . .	
P	M	23	0:51	7:11	13:16	19:30	
			6.2	0.9	5.7	0.9	
	Tu	24	1:49	8:20	14:18	20:42	
			6.0	1.0	5.6	1.0	
E	W	25	2:48	9:30	15:20	21:52	
			6.0	0.9	5.6	1.0	
	Th	26	3:48	10:35	16:23	23:00	
			6.0	0.8	5.7	0.9	
	F	27	4:47	11:31	17:20	23:58	
			6.0	0.6	5.8	0.8	
	S	28	5:41	12:24	18:16	. . .	
			6.0	0.4	6.0	. . .	
○	S	29	0:51	6:32	13:12	19:05	
			0.7	6.0	0.3	6.1	
	M	30	1:40	7:20	14:00	19:50	
			0.7	6.1	0.2	6.2	
S	Tu	31	2:27	8:07	14:41	20:36	
			0.7	6.0	0.3	6.2	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	3:12	8:51	15:23	21:20	
			0.8	5.9	0.4	6.1	
	Th	2	3:53	9:36	16:03	22:05	
			0.9	5.8	0.6	6.0	
	F	3	4:34	10:20	16:42	22:47	
			1.0	5.6	0.8	5.9	
	S	4	5:14	11:04	17:22	23:30	
			1.2	5.4	1.0	5.7	
A	S	5	5:56	11:50	18:00	. . .	
			1.4	5.3	1.2	. . .	
☾	M	6	0:17	6:42	12:37	18:42	
			5.6	1.5	5.1	1.4	
	Tu	7	1:03	7:28	13:25	19:27	
			5.5	1.5	5.0	1.5	
E	W	8	1:51	8:17	14:18	20:20	
			5.5	1.5	5.0	1.5	
	Th	9	2:43	9:12	15:12	21:20	
			5.5	1.4	5.1	1.5	
	F	10	3:33	10:05	16:06	22:12	
			5.5	1.2	5.3	1.4	
	S	11	4:26	10:55	16:58	23:10	
			5.6	1.0	5.5	1.3	
	S	12	5:16	11:45	17:50	. . .	
			5.8	0.7	5.8	. . .	
	M	13	0:05	6:06	12:33	18:40	
			1.0	6.0	0.5	6.1	
●	Tu	14	0:54	6:57	13:20	19:29	
			0.8	6.1	0.3	6.4	
N	W	15	1:41	7:45	14:05	20:17	
			0.6	6.3	0.1	6.6	
	Th	16	2:30	8:35	14:53	21:06	
			0.5	6.3	0.0	6.7	
	F	17	3:18	9:24	15:39	21:56	
			0.5	6.3	0.0	6.8	
P	S	18	4:08	10:14	16:27	22:47	
			0.5	6.3	0.1	6.7	
	S	19	5:01	11:07	17:22	23:40	
			0.5	6.1	0.3	6.5	
	M	20	5:58	12:02	18:17	. . .	
			0.7	6.0	0.5	. . .	
☽ E	Tu	21	0:32	7:00	13:00	19:17	
			6.3	0.6	5.8	0.8	
	W	22	1:28	8:02	13:57	20:23	
			6.1	0.8	5.6	1.0	
	Th	23	2:25	9:07	14:58	21:31	
			6.0	0.9	5.5	1.1	
	F	24	3:24	10:11	15:59	22:38	
			5.8	0.8	5.5	1.1	
	S	25	4:21	11:10	16:58	23:40	
			5.7	0.7	5.6	1.0	
	S	26	5:16	12:05	17:52	. . .	
			5.7	0.6	5.7	. . .	
	M	27	0:37	6:10	12:53	18:42	
			0.9	5.6	0.5	5.8	
S ○	Tu	28	1:26	6:57	13:40	19:30	
			0.9	5.6	0.5	5.8	
	W	29	2:12	7:42	14:25	20:15	
			1.0	5.7	0.5	5.9	
	Th	30	2:52	8:27	15:02	20:57	
			1.0	5.7	0.6	5.9	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is New Zealand Standard, for the meridian 172° 30′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:33 1.1	9:09 5.6	15:38 0.7	21:38 5.9	
	S	2	4:08 1.2	9:52 5.6	16:12 0.9	22:19 5.9	
A	S	3	4:42 1.2	10:33 5.5	16:44 1.0	23:00 5.9	
	M	4	5:13 1.2	11:15 5.4	17:18 1.0	23:40 5.8	
E	Tu	5	5:50 1.2	12:00 5.3	17:56 1.2	. . . . .	
☾	W	6	0:26 5.7	6:35 1.2	12:46 5.3	18:37 1.2	
	Th	7	1:12 5.7	7:20 1.2	13:37 5.3	19:28 1.2	
	F	8	2:02 5.6	8:12 1.1	14:30 5.3	20:21 1.3	
	S	9	2:54 5.6	9:10 1.1	15:27 5.4	21:25 1.3	
	S	10	3:48 5.7	10:11 0.9	16:23 5.6	22:27 1.2	
	M	11	4:43 5.8	11:10 0.7	17:20 5.9	23:31 1.0	
N	Tu	12	5:38 5.9	12:05 0.5	18:14 6.2	. . . . .	
●	W	13	0:30 0.8	6:32 6.1	13:00 0.2	19:07 6.5	
	Th	14	1:27 0.6	7:26 6.3	13:50 0.0	19:58 6.7	
P	F	15	2:18 0.4	8:17 6.4	14:38 0.0	20:48 6.8	
	S	16	3:09 0.3	9:09 6.5	15:27 0.0	21:38 6.9	
	S	17	4:00 0.3	10:00 6.4	16:16 0.0	22:29 6.8	
E	M	18	4:51 0.3	10:50 6.3	17:08 0.2	23:20 6.7	
	Tu	19	5:44 0.4	11:42 6.1	18:02 0.4	. . . . .	
☽	W	20	0:12 6.4	6:40 0.6	12:37 5.9	19:00 0.7	
	Th	21	1:06 6.2	7:40 0.7	13:35 5.7	20:03 1.0	
	F	22	2:00 5.9	8:43 0.8	14:35 5.5	21:10 1.2	
	S	23	2:58 5.7	9:47 0.9	15:36 5.4	22:20 1.3	
	S	24	3:56 5.5	10:50 0.9	16:35 5.4	23:25 1.2	
S	M	25	4:52 5.4	11:46 0.8	17:31 5.4	. . . . .	
	Tu	26	0:18 1.2	5:47 5.4	12:35 0.7	18:21 5.5	
○	W	27	1:10 1.2	6:36 5.4	13:22 0.7	19:08 5.6	
	Th	28	1:55 1.0	7:21 5.5	14:04 0.7	19:51 5.7	
	F	29	2:34 1.1	8:04 5.5	14:41 0.8	20:32 5.8	
	S	30	3:07 1.1	8:45 5.6	15:13 0.8	21:08 5.9	
A	S	31	3:35 1.1	9:25 5.6	15:43 0.9	21:47 6.0	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	4:05 1.1	10:02 5.6	16:10 0.9	22:27 6.0	
	Tu	2	4:34 1.0	10:42 5.6	16:40 0.9	23:17 6.0	
	W	3	5:11 0.9	11:26 5.6	17:20 0.9	23:50 5.9	
	Th	4	5:50 0.8	12:11 5.5	18:00 0.9	. . . . .	
☾	F	5	0:36 5.8	6:38 0.9	13:00 5.5	18:50 1.0	
	S	6	1:25 5.7	7:30 0.9	13:54 5.5	19:44 1.1	
	S	7	2:20 5.7	8:30 0.9	14:52 5.6	20:47 1.2	
N	M	8	3:16 5.7	9:33 0.9	15:52 5.7	21:55 1.2	
	Tu	9	4:15 5.7	10:40 0.7	16:52 5.9	23:08 1.0	
	W	10	5:14 5.9	11:44 0.5	17:50 6.2	. . . . .	
	Th	11	0:14 0.8	6:12 6.1	12:40 0.2	18:45 6.5	
●	F	12	1:10 0.5	7:06 6.3	13:33 0.0	19:37 6.7	
P	S	13	2:02 0.3	8:00 6.5	14:24 —0.1	20:29 6.9	
E	S	14	2:52 0.1	8:50 6.6	15:14 —0.1	21:18 7.0	
	M	15	3:42 0.1	9:42 6.6	16:02 —0.1	22:07 6.9	
	Tu	16	4:31 0.1	10:31 6.5	16:52 0.1	22:57 6.7	
	W	17	5:22 0.2	11:21 6.3	17:44 0.4	23:47 6.4	
☽	Th	18	6:16 0.5	12:14 6.0	18:39 0.8	. . . . .	
	F	19	0:40 6.1	7:12 0.7	13:10 5.7	19:42 1.1	
	S	20	1:35 5.8	8:15 0.9	14:07 5.5	20:52 1.3	
S	S	21	2:32 5.5	9:20 1.0	15:07 5.3	21:57 1.4	
	M	22	3:30 5.3	10:25 1.1	16:08 5.2	23:03 1.3	
	Tu	23	4:30 5.2	11:23 1.1	17:06 5.2	23:59 1.3	
	W	24	5:24 5.2	12:15 0.9	17:57 5.4	. . . . .	
	Th	25	0:47 1.2	6:16 5.3	13:03 0.8	18:41 5.5	
○	F	26	1:32 1.2	6:58 5.4	13:42 0.8	19:22 5.7	
A	S	27	2:08 1.2	7:40 5.5	14:15 0.9	20:02 5.8	
	S	28	2:40 1.1	8:18 5.6	14:46 0.9	20:39 5.9	
○ E	M	29	3:02 1.0	8:55 5.7	15:11 0.9	21:16 6.0	
	Tu	30	3:31 0.9	9:32 5.8	15:36 0.8	21:55 6.1	
	W	31	3:58 0.7	10:12 5.8	16:10 0.7	22:34 6.1	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	4:33 0.6	10:50 5.8	16:47 0.7	23:17 6.0	
	F	2	5:16 0.6	11:40 5.8	17:30 0.7	. . . . .	
☾	S	3	0:02 5.9	6:02 0.7	12:30 5.8	18:19 0.8	
	S	4	0:54 5.8	6:55 0.7	13:24 5.7	19:15 1.0	
N	M	5	1:48 5.7	7:55 0.8	14:23 5.7	20:20 1.1	
	Tu	6	2:49 5.6	9:02 0.9	15:16 5.8	21:32 1.1	
	W	7	3:50 5.7	10:12 0.8	16:27 6.0	22:50 1.0	
	Th	8	4:52 5.8	11:22 0.6	17:27 6.2	23:55 0.7	
	F	9	5:52 6.1	12:20 0.3	18:24 6.5	. . . . .	
P ●	S	10	0:53 0.4	6:47 6.3	13:17 0.1	19:16 6.7	
E	S	11	1:44 0.2	7:40 6.6	14:07 —0.1	20:07 6.9	
	M	12	2:35 0.0	8:31 6.7	14:55 —0.1	20:56 6.9	
	Tu	13	3:22 —0.1	9:20 6.7	15:43 0.0	21:43 6.8	
	W	14	4:08 0.0	10:10 6.6	16:32 0.2	22:32 6.6	
	Th	15	4:57 0.2	10:58 6.4	17:22 0.5	23:21 6.3	
	F	16	5:49 0.4	11:50 6.1	18:16 0.8	. . . . .	
☽ S	S	17	0:12 6.0	6:45 0.7	12:42 5.8	19:18 1.2	
	S	18	1:05 5.6	7:45 1.0	13:38 5.5	20:24 1.4	
	M	19	2:02 5.3	8:50 1.2	14:38 5.3	21:34 1.5	
	Tu	20	3:02 5.1	10:00 1.2	15:37 5.2	22:37 1.4	
	W	21	4:02 5.0	10:57 1.2	16:34 5.2	23:33 1.3	
	Th	22	4:59 5.0	11:50 1.1	17:24 5.3	. . . . .	
A	F	23	0:20 1.2	5:48 5.2	12:36 1.0	18:10 5.4	
	S	24	1:01 1.1	6:30 5.3	13:13 1.0	18:50 5.6	
○ E	S	25	1:35 1.0	7:11 5.5	13:43 1.0	19:30 5.8	
	M	26	2:04 0.9	7:49 5.7	14:10 1.0	20:16 6.0	
	Tu	27	2:27 0.8	8:26 5.8	14:40 0.9	20:43 6.1	
	W	28	2:55 0.7	9:05 6.0	15:07 0.7	21:24 6.1	
	Th	29	3:28 0.5	9:46 6.0	15:42 0.6	22:04 6.1	
	F	30	4:11 0.5	10:32 6.0	16:27 0.7	22:52 5.9	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is New Zealand Standard, for the meridian 172° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m) and when diminished by 12 gives the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	4:52	11:19	17:11	23:39	
			0.6	6.0	0.7	5.8	
N	S	2	5:40	12:09	18:01	. . .	
			0.7	5.9	0.9	. . .	
☾	M	3	0:30	6:32	13:04	19:04	
			5.7	0.8	5.8	1.1	
	Tu	4	1:28	7:30	14:00	20:08	
			5.6	1.0	5.8	1.1	
	W	5	2:22	8:32	14:56	21:19	
			5.6	0.9	5.9	0.9	
	Th	6	8:33	9:52	16:11	22:30	
			5.6	0.9	6.1	0.9	
	F	7	4:36	11:00	17:02	23:25	
			5.9	0.7	6.3	0.7	
P E	S	8	5:37	12:08	18:07	. . .	
			6.2	0.2	6.4	. . .	
●	S	9	0:30	6:21	12:50	18:52	
			0.3	6.5	0.3	6.8	
	M	10	1:28	7:26	13:38	19:47	
			—0.1	6.6	0.1	6.9	
	Tu	11	2:05	8:10	14:31	20:27	
			—0.1	6.8	0.1	6.9	
	W	12	2:48	9:02	15:14	21:24	
			—0.1	6.8	0.1	6.8	
	Th	13	3:38	9:52	16:07	21:55	
			0.0	6.7	0.3	6.6	
	F	14	4:24	10:40	16:50	23:02	
			0.2	6.5	0.6	6.3	
S	S	15	5:12	11:32	17:46	23:49	
			0.5	6.2	0.9	5.9	
☽	S	16	6:05	12:23	18:37	. . .	
			0.8	5.9	1.2	. . .	
	M	17	0:43	6:56	13:16	19:37	
			5.6	1.1	5.6	1.5	
	Tu	18	1:40	7:55	14:12	20:37	
			5.3	1.4	5.4	1.7	
	W	19	2:37	8:55	15:08	21:39	
			5.1	1.6	5.3	1.7	
	Th	20	3:30	9:50	16:00	22:30	
			5.0	1.7	5.3	1.6	
A	F	21	4:26	10:45	16:50	23:18	
			5.0	1.6	5.4	1.5	
E	S	22	5:17	11:33	17:35	. . .	
			5.2	1.5	5.5	. . .	
	S	23	0:00	6:02	12:11	18:20	
			1.3	5.4	1.4	5.7	
○	M	24	0:42	6:44	12:53	19:02	
			1.1	5.6	1.2	5.9	
	Tu	25	1:15	7:29	13:22	19:44	
			0.8	5.8	1.0	6.0	
	W	26	1:50	8:10	14:02	20:27	
			0.7	6.0	0.8	6.1	
	Th	27	2:25	8:53	14:42	21:07	
			0.5	6.1	0.7	6.1	
	F	28	3:05	9:35	15:22	21:52	
			0.4	6.2	0.6	6.1	
N	S	29	3:47	10:18	16:05	22:39	
			0.3	6.2	0.6	6.0	
	S	30	4:28	11:05	16:53	23:28	
			0.4	6.1	0.7	5.8	
	M	31	5:15	11:57	17:45	. . .	
			0.5	6.0	0.8	. . .	

NOVEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
☽	Tu	1	0:18	6:10	12:48	18:42	
			5.6	0.6	5.9	0.9	
	W	2	1:20	7:07	13:47	19:45	
			5.5	0.8	5.8	1.0	
	Th	3	2:19	8:13	14:47	20:55	
			5.5	0.9	5.8	1.0	
	F	4	3:22	9:21	15:50	22:02	
			5.6	1.0	6.0	0.8	
E P	S	5	4:22	10:25	16:48	23:01	
			5.8	0.8	6.1	0.6	
	S	6	5:20	11:25	17:45	23:59	
			6.0	0.7	6.3	0.4	
	M	7	6:14	12:22	18:36	. . .	
			6.3	0.5	6.5	. . .	
●	Tu	8	0:49	7:07	13:15	19:26	
			0.2	6.5	0.4	6.6	
	W	9	1:40	7:55	14:03	20:14	
			0.0	6.6	0.4	6.6	
	Th	10	2:26	8:43	14:52	21:02	
			0.0	6.6	0.4	6.5	
S	F	11	3:12	9:32	15:37	21:48	
			0.1	6.5	0.6	6.4	
	S	12	3:58	10:17	16:26	22:37	
			0.3	6.4	0.8	6.0	
	S	13	4:40	11:08	17:10	23:28	
			0.5	6.1	1.0	5.7	
	M	14	5:30	11:57	18:00	. . .	
			0.8	5.8	1.2	. . .	
☽	Tu	15	0:20	6:21	12:47	18:53	
			5.4	1.2	5.6	1.4	
	W	16	1:11	7:09	13:40	19:49	
			5.2	1.4	5.4	1.6	
A	Th	17	2:04	8:02	14:31	20:41	
			5.0	1.6	5.3	1.6	
E	F	18	3:00	8:58	15:21	21:36	
			4.9	1.7	5.3	1.6	
	S	19	3:51	9:52	16:13	22:30	
			5.0	1.7	5.4	1.4	
	S	20	4:42	10:42	17:00	23:13	
			5.1	1.6	5.5	1.2	
	M	21	5:30	11:27	17:45	23:53	
			5.3	1.4	5.7	0.9	
	Tu	22	6:16	12:10	18:30	. . .	
			5.5	1.2	5.9	. . .	
○	W	23	0:36	7:00	12:52	19:16	
			0.7	6.8	1.0	6.0	
	Th	24	1:17	7:44	13:37	20:00	
			0.5	6.0	0.8	6.1	
	F	25	2:00	8:26	14:20	20:46	
			0.3	6.2	0.7	6.1	
N	S	26	2:40	9:10	15:02	21:32	
			0.2	6.4	0.5	6.1	
	S	27	3:29	9:59	15:49	22:26	
			0.2	6.4	0.5	6.0	
	M	28	4:13	10:46	16:37	23:08	
			0.2	6.4	0.6	5.9	
	Tu	29	5:02	11:37	17:30	. . .	
			0.4	6.3	0.6	. . .	
☾	W	30	0:00	5:52	12:30	18:27	
			5.7	0.5	6.1	0.8	

DECEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	Th	1	1:00	6:50	13:26	19:28	
			5.6	0.8	6.0	0.9	
E	F	2	2:00	7:52	14:25	20:33	
			5.6	0.9	5.9	0.9	
P	S	3	3:00	8:57	15:25	21:38	
			5.6	1.0	5.9	0.8	
	S	4	4:00	10:00	16:23	22:39	
			5.7	1.0	6.0	0.7	
	M	5	4:58	11:05	17:20	23:35	
			5.8	1.0	6.1	0.5	
	Tu	6	5:54	12:02	18:15	. . .	
			6.0	0.8	6.2	. . .	
●	W	7	0:27	6:45	12:54	19:05	
			0.3	6.2	0.7	6.3	
	Th	8	1:17	7:35	13:45	19:52	
			0.2	6.3	0.7	6.3	
S	F	9	2:03	8:21	14:32	20:39	
			0.2	6.4	0.7	6.2	
	S	10	2:49	9:09	15:14	21:26	
			0.3	6.3	0.8	6.1	
	S	11	3:33	9:56	16:00	22:14	
			0.4	6.2	0.9	5.8	
	M	12	4:17	10:41	16:46	23:00	
			0.6	6.1	1.0	5.6	
	Tu	13	4:58	11:27	17:27	23:48	
			0.9	5.9	1.2	5.4	
	W	14	5:40	12:14	18:12	. . .	
			1.1	5.7	1.3	. . .	
☽ A	Th	15	0:37	6:20	13:59	19.00	
			5.2	1.3	5.5	1.4	
E	F	16	1:27	7:10	13:48	19:50	
			5.0	1.5	5.4	1.5	
	S	17	2:18	7:55	14:37	20:45	
			5.0	1.6	5.3	1.4	
	S	18	3:10	8:43	15:30	21:32	
			5.0	1.6	5.4	1.3	
	M	19	4:03	9:42	16:20	22:29	
			5.1	1.5	5.4	1.2	
	Tu	20	4:52	10:42	17:10	23:14	
			5.3	1.4	5.6	0.9	
	W	21	5:44	11:30	18:00	. . .	
			5.5	1.2	5.8	. . .	
	Th	22	0:05	6:30	12:21	18:48	
			0.7	5.8	1.0	6.0	
○ N	F	23	0:50	7:18	13:10	19:37	
			0.4	6.1	0.7	6.1	
	S	24	1:38	8:05	14:00	20:26	
			0.3	6.3	0.6	6.2	
	S	25	2:24	8:51	14:47	21:13	
			0.1	6.5	0.4	6.3	
	M	26	3:10	9:38	15:37	22:01	
			0.0	6.6	0.4	6.2	
	Tu	27	3:59	10:29	16:25	22:52	
			0.1	6.6	0.4	6.1	
P	W	28	4:46	11:19	17:18	23:44	
			0.2	6.5	0.5	6.0	
E	Th	29	5:39	12:10	18:12	. . .	
			0.4	6.3	0.6	. . .	
☾	F	30	0:40	6:32	13:04	19:10	
			5.8	0.6	6.2	0.7	
	S	31	1:36	7:30	14:00	20:09	
			5.7	0.9	6.0	0.8	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is New Zealand Standard, for the meridian 172° 30′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	6:21 4.6	12:57 0.0	18:54 3.4	. . . . . .
N	S	2	0:46 0.3	7:10 4.9	13:46 —0.2	19:43 3.5
○	S	3	1:33 0.2	7:57 5.0	14:32 —0.4	20:32 3.5
P	M	4	2:20 0.2	8:44 5.1	15:09 —0.5	21:20 3.6
	Tu	5	3:07 0.2	9:30 5.0	16:05 —0.5	22:09 3.7
	W	6	3:56 0.3	10:18 4.8	16:52 —0.4	22:58 3.7
	Th	7	4:49 0.4	11:07 4.5	17:40 —0.3	23:52 3.7
E	F	8	5:45 0.6	12:00 4.2	18:30 —0.1	. . . . . .
	S	9	0:45 3.6	6:50 0.7	12:58 3.8	19:21 0.2
☾	S	10	1:42 3.6	7:55 0.8	14:00 3.4	20:15 0.4
	M	11	2:43 3.7	9:12 0.9	15:07 3.1	21:13 0.6
	Tu	12	3:45 3.8	10:30 0.9	16:22 2.9	22:14 0.6
	W	13	4:44 3.9	11:41 0.9	17:35 2.9	23:12 0.6
	Th	14	5:36 4.1	12:39 0.7	18:37 2.9	. . . . . .
S	F	15	0:03 0.6	6:24 4.2	13:25 0.6	19:26 2.8
	S	16	0:50 0.6	7:08 4.3	14:00 0.5	20:02 2.8
	S	17	1:32 0.6	7:47 4.4	14:32 0.4	20:34 2.9
●	M	18	2:08 0.6	8:25 4.4	15:02 0.2	21:02 3.1
	Tu	19	2:41 0.7	8:59 4.3	15:33 0.1	21:33 3.2
A	W	20	3:15 0.8	9:35 4.2	16:05 0.1	22:05 3.3
	Th	21	3:47 0.8	10:10 4.1	16:40 0.1	22:41 3.4
	F	22	4:24 0.8	10:45 3.9	17:15 0.1	23:22 3.5
E	S	23	5:10 0.8	11:25 3.7	17:52 0.2	. . . . . .
	S	24	0:07 3.6	6:02 0.9	12:07 3.5	18:35 0.4
	M	25	0:58 3.7	6:59 0.9	12:57 3.3	19:25 0.5
☽	Tu	26	1:56 3.7	8:07 0.9	14:00 3.1	20:21 0.6
	W	27	2:58 3.8	9:22 0.9	15:10 3.0	21:24 0.7
	Th	28	4:00 4.0	10:35 0.7	16:25 3.0	22:28 0.6
	F	29	5:00 4.3	11:40 0.4	17:37 3.1	23:30 0.5
N	S	30	5:58 4.5	12:37 0.2	18:38 3.3	. . . . . .
	S	31	0:28 0.3	6:50 4.8	13:28 —0.1	19:31 3.5

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	M	1	1:20 0.1	7:40 5.0	14:15 —0.4	20:20 3.7
○ P	Tu	2	2:10 0.0	8:28 5.1	15:00 —0.5	21:05 3.9
	W	3	2:58 0.0	9:15 5.0	15:43 —0.5	21:52 4.0
	Th	4	3:47 0.0	10:01 4.8	16:27 —0.5	22:37 4.0
E	F	5	4:37 0.1	10:50 4.5	17:12 —0.3	23:25 4.0
	S	6	5:30 0.3	11:39 4.1	17:56 0.0	. . . . . .
	S	7	0:12 3.9	6:22 0.5	12:31 3.7	18:45 0.3
☾	M	8	1:07 3.9	7:25 0.7	13:27 3.3	19:37 0.5
	Tu	9	2:06 3.8	8:39 0.9	14:35 2.9	20:36 0.8
	W	10	3:07 3.7	10:00 1.1	15:54 2.7	21:40 0.9
	Th	11	4:10 3.7	11:16 1.0	17:13 2.7	22:44 0.9
S	F	12	5:08 3.8	12:17 0.9	18:19 2.8	23:42 0.8
	S	13	6:00 3.9	13:00 0.7	19:06 2.9	. . . . . .
	S	14	0:32 0.7	6:45 4.0	13:37 0.6	19:42 3.0
	M	15	1:16 0.7	7:26 4.1	14:06 0.4	20:10 3.2
A ●	Tu	16	1:53 0.6	8:02 4.2	14:34 0.2	20:40 3.3
	W	17	2:27 0.6	8:37 4.2	15:02 0.1	21:07 3.5
	Th	18	3:00 0.6	9:12 4.1	15:32 0.1	21:38 3.6
	F	19	3:33 0.5	9:46 4.1	16:04 0.0	22:12 3.8
	S	20	4:10 0.5	10:20 3.9	16:36 0.1	22:49 3.9
	S	21	4:52 0.5	10:58 3.8	17:15 0.2	23:32 3.9
	M	22	5:37 0.5	11:41 3.6	17:56 0.4	. . . . . .
	Tu	23	0:20 3.9	6:32 0.6	12:28 3.4	18:45 0.6
☽	W	24	1:17 3.9	7:37 0.7	13:29 3.1	19:41 0.8
	Th	25	2:20 3.8	8:50 0.7	14:41 3.0	20:50 0.9
N	F	26	3:26 3.9	10:07 0.7	16:02 2.9	22:02 0.8
	S	27	4:33 4.1	11:17 0.5	17:20 3.1	23:12 0.6
	S	28	5:35 4.3	12:14 0.2	18:21 3.4	. . . . . .
	M	29	0:14 0.3	6:31 4.6	13:07 —0.1	19:14 3.7

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:10 0.1	7:22 4.8	13:52 —0.3	20:00 4.0
○	W	2	2:00 —0.1	8:11 4.8	14:36 —0.4	20:44 4.2
E	Th	3	2:47 —0.2	9:00 4.8	15:18 —0.5	21:28 4.3
	F	4	3:34 —0.2	9:46 4.6	15:58 —0.4	22:11 4.4
	S	5	4:22 —0.2	10:30 4.3	16:42 —0.2	22:55 4.3
	S	6	5:07 0.1	11:16 3.9	17:24 0.2	23:40 4.1
	M	7	6:00 0.3	12:04 3.5	18:09 0.5	. . . . . .
	Tu	8	0:30 4.0	6:59 0.6	12:56 3.1	19:02 0.8
☾	W	9	1:26 3.8	8:03 0.9	14:02 2.8	20:00 1.0
S	Th	10	2:28 3.6	9:17 1.1	15:21 2.6	21:08 1.1
	F	11	3:32 3.5	10:33 1.1	16:45 2.6	22:18 1.1
	S	12	4:34 3.5	11:35 1.0	17:50 2.8	23:21 1.0
	S	13	5:30 3.6	12:18 0.8	18:35 3.0	. . . . . .
A	M	14	0:14 0.8	6:20 3.7	12:56 0.6	19:07 3.2
	Tu	15	0:58 0.7	7:00 3.8	13:30 0.4	19:40 3.4
	W	16	1:35 0.6	7:40 3.9	13:59 0.2	20:09 3.6
●	Th	17	2:10 0.5	8:17 4.0	14:29 0.1	20:37 3.8
E	F	18	2:43 0.3	8:50 4.0	15:02 0.1	21:11 4.0
	S	19	3:20 0.2	9:23 4.0	15:34 0.1	21:46 4.1
	S	20	3:56 0.2	9:59 3.9	16:06 0.2	22:22 4.1
	M	21	4:35 0.2	10:37 3.7	16:42 0.3	23:03 4.1
	Tu	22	5:22 0.2	11:20 3.6	17:20 0.5	23:51 4.1
	W	23	6:16 0.3	12:10 3.3	18:07 0.7	. . . . . .
	Th	24	0:46 4.0	7:19 0.5	13:11 3.1	19:06 0.9
N ☽	F	25	1:48 3.9	8:27 0.8	14:27 2.9	20:23 1.0
	S	26	2:58 3.8	9:42 0.6	15:49 3.0	21:45 0.9
	S	27	4:07 3.9	10:50 0.4	17:02 3.2	23:00 0.6
	M	28	5:12 4.1	11:48 0.2	18:02 3.6	. . . . . .
	Tu	29	0:02 0.3	6:12 4.3	12:40 0.0	18:51 3.9
P	W	30	0:58 0.0	7:07 4.4	13:25 —0.2	19:37 4.2
E ○	Th	31	1:47 —0.2	7:57 4.4	14:10 —0.3	20:20 4.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	2:32	8:42	14:52	21:02	
			—0.3	4.4	—0.2	4.5	
	S	2	3:16	9:27	15:30	21:43	
			—0.3	4.2	—0.1	4.5	
	S	3	4:01	10:10	16:10	22:24	
			—0.2	3.9	0.1	4.4	
	M	4	4:47	10:52	16:50	23:09	
			0.0	3.6	0.4	4.3	
	Tu	5	5:37	11:39	17:33	23:56	
			0.3	3.3	0.7	4.0	
S	W	6	6:30	12:29	18:20	. . .	
			0.5	3.0	1.0	. . .	
	Th	7	0:47	7:28	13:30	19:18	
			3.8	0.8	2.8	1.2	
☾	F	8	1:44	8:32	14:47	20:30	
			3.5	0.9	2.6	1.3	
	S	9	2:50	9:38	16:04	21:47	
			3.4	1.0	2.7	1.3	
	S	10	3:50	10:36	17:05	22:54	
			3.3	0.9	2.9	1.2	
A	M	11	4:52	11:26	17:50	23:49	
			3.4	0.7	3.1	1.0	
	Tu	12	5:47	12:07	18:25	. . .	
			3.5	0.6	3.4	. . .	
	W	13	0:32	6:32	12:45	18:58	
			0.8	3.6	0.4	3.7	
E	Th	14	1:12	7:11	13:22	19:34	
			0.5	3.7	0.4	3.9	
	F	15	1:47	7:47	13:57	20:07	
			0.3	3.8	0.2	4.1	
●	S	16	2:21	8:24	14:29	20:42	
			0.1	3.8	0.2	4.3	
	S	17	2:59	9:00	15:00	21:18	
			0.0	3.8	0.2	4.4	
	M	18	3:40	9:40	15:35	21:59	
			—0.1	3.7	0.3	4.4	
	Tu	19	4:22	10:20	16:10	22:41	
			—0.1	3.6	0.5	4.4	
	W	20	5:11	11:06	16:52	23:30	
			0.0	3.4	0.7	4.2	
N	Th	21	6:05	11:59	17:42	. . .	
			0.1	3.3	0.9	. . .	
	F	22	0:25	7:05	13:03	18:49	
			4.1	0.3	2.7	1.0	
☽	S	23	1:25	8:10	14:18	20:08	
			3.9	0.4	3.0	1.1	
	S	24	2:32	9:15	15:34	21:32	
			3.8	0.4	3.2	0.9	
	M	25	3:45	10:20	16:40	22:47	
			3.8	0.3	3.4	0.7	
	Tu	26	4:54	11:17	17:35	23:48	
			3.8	0.2	3.8	0.4	
P E	W	27	5:55	12:10	18:22	. . .	
			3.9	0.1	4.1	. . .	
	Th	28	0:40	6:50	13:00	19:10	
			0.1	4.0	0.0	4.4	
	F	29	1:30	7:39	13:42	19:52	
			—0.1	4.0	—0.1	4.6	
○	S	30	2:18	8:25	14:22	20:32	
			—0.2	3.9	0.0	4.7	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	3:02	9:07	15:00	21:15	
			—0.2	3.8	0.1	4.7	
	M	2	3:45	9:48	15:39	21:57	
			—0.1	3.5	0.3	4.5	
	Tu	3	4:30	10:30	16:16	22:40	
			0.0	3.3	0.6	4.3	
S	W	4	5:15	11:14	16:55	23:24	
			0.2	3.1	0.9	4.1	
	Th	5	6:02	12:02	17:40	. . .	
			0.4	2.9	1.1	. . .	
	F	6	0:10	6:54	13:00	18:37	
			3.8	0.6	2.8	1.3	
☾	S	7	1:02	7:46	14:05	19:45	
			3.5	0.7	2.8	1.4	
	S	8	2:02	8:41	15:09	21:02	
			3.3	0.8	2.8	1.4	
A	M	9	3:05	9:37	16:03	22:13	
			3.2	0.8	3.0	1.3	
	Tu	10	4:06	10:30	16:53	23:10	
			3.2	0.7	3.3	1.1	
E	W	11	5:02	11:15	17:36	23:57	
			3.2	0.6	3.6	0.8	
	Th	12	5:51	12:00	18:16	. . .	
			3.3	0.4	3.9	. . .	
	F	13	0:40	6:36	12:42	18:57	
			0.5	3.4	0.3	4.2	
	S	14	1:22	7:19	13:20	19:36	
			0.3	3.5	0.3	4.4	
●	S	15	2:02	7:58	13:56	20:15	
			0.0	3.6	0.3	4.6	
	M	16	2:43	8:40	14:30	20:56	
			—0.1	3.6	0.3	4.7	
	Tu	17	3:27	9:21	15:09	21:38	
			—0.2	3.6	0.4	4.7	
N	W	18	4:13	10:17	15:50	22:25	
			—0.3	3.5	0.5	4.6	
	Th	19	5:02	10:58	16:37	23:13	
			—0.2	3.4	0.7	4.4	
	F	20	5:55	11:54	17:32	. . .	
			—0.1	3.3	0.8	. . .	
	S	21	0:07	6:48	12:55	18:42	
			4.2	0.1	3.2	1.0	
☽	S	22	1:07	7:47	14:04	19:57	
			3.9	0.2	3.2	1.0	
P	M	23	2:12	8:48	15:09	21:17	
			3.7	0.3	3.4	0.9	
E	Tu	24	3:24	9:47	16:10	22:28	
			3.6	0.3	3.6	0.7	
	W	25	4:32	10:47	17:07	23:30	
			3.5	0.3	3.9	0.5	
	Th	26	5:35	11:40	17:57	. . .	
			3.5	0.2	4.2	. . .	
	F	27	0:28	6:31	12:28	18:45	
			0.3	3.5	0.2	4.4	
	S	28	1:20	7:22	13:14	19:27	
			0.1	3.5	0.2	4.6	
○	S	29	2:06	8:09	13:55	20:11	
			0.0	3.4	0.3	4.7	
	M	30	2:49	8:51	14:33	20:52	
			0.0	3.3	0.3	4.7	
S	Tu	31	3:30	9:32	15:10	21:32	
			0.0	3.2	0.5	4.5	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	4:10	10:10	15:48	22:13	
			0.1	3.1	0.8	4.3	
	Th	2	4:52	10:50	16:25	22:53	
			0.2	3.0	1.0	4.1	
	F	3	5:33	11:36	17:07	23:36	
			0.3	3.0	1.1	3.8	
	S	4	6:17	12:26	17:58	. . .	
			0.4	3.0	1.3	. . .	
A	S	5	0:23	7:02	13:19	19:00	
			3.5	0.5	3.0	1.4	
☾	M	6	1:13	7:50	14:12	20:09	
			3.3	0.6	3.1	1.4	
	Tu	7	2:09	8:40	15:08	21:21	
			3.1	0.6	3.3	1.7	
E	W	8	3:08	9:32	16:02	22:22	
			3.1	0.6	3.5	1.1	
	Th	9	4:07	10:22	16:54	23:18	
			3.0	0.6	3.8	0.9	
	F	10	5:06	11:16	17:40	. . .	
			3.1	0.5	4.1	. . .	
	S	11	0:10	6:00	12:00	18:25	
			0.6	3.2	0.4	4.4	
	S	12	0:57	6:50	12:45	19:10	
			0.3	3.3	0.4	4.6	
	M	13	1:42	7:37	13:29	19:54	
			0.0	3.4	0.3	4.8	
● N	Tu	14	2:28	8:22	14:11	20:38	
			—0.2	3.4	0.3	4.9	
	W	15	3:15	9:10	14:54	21:23	
			—0.3	3.5	0.4	4.9	
	Th	16	4:00	9:57	15:40	22:10	
			—0.4	3.5	0.5	4.7	
P	F	17	4:47	10:48	16:30	23:00	
			—0.3	3.5	0.6	4.5	
	S	18	5:36	11:44	17:28	23:51	
			—0.2	3.4	0.7	4.3	
	S	19	6:29	12:42	18:32	. . .	
			—0.1	3.4	0.8	. . .	
	M	20	0:50	7:21	13:40	19:44	
			4.0	0.1	3.5	0.9	
☽ E	Tu	21	1:52	8:17	14:40	20:56	
			3.7	0.3	3.6	0.8	
	W	22	3:00	9:14	15:42	22:10	
			3.4	0.4	3.8	0.8	
	Th	23	4:08	10:12	16:40	23:20	
			3.3	0.4	4.0	0.7	
	F	24	5:15	11:10	17:32	. . .	
			3.2	0.4	4.2	. . .	
	S	25	0:20	6:17	12:00	18:21	
			0.5	3.1	0.4	4.4	
	S	26	1:12	7:11	12:47	19:07	
			0.4	3.1	0.4	4.5	
S	M	27	1:59	7:57	13:31	19:50	
			0.3	3.1	0.4	4.6	
○	Tu	28	2:38	8:38	14:11	20:30	
			0.3	3.1	0.5	4.5	
	W	29	3:13	9:14	14:50	21:10	
			0.2	3.1	0.6	4.4	
	Th	30	3:49	9:48	15:25	21:48	
			0.2	3.1	0.8	4.3	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:24 0.2	10:26 3.1	16:02 0.9	22:25 3.1
	S	2	5:02 0.2	11:05 3.1	16:40 1.0	23:05 3.8
A	S	3	5:40 0.3	11:47 3.2	17:25 1.1	23:45 3.6
	M	4	6:20 0.4	12:32 3.3	18:20 1.2	. . . . . .
E	Tu	5	0:28 3.4	7:00 0.4	13:22 3.4	19:20 1.2
☾	W	6	1:16 3.2	7:48 0.5	14:19 3.5	20:24 1.2
	Th	7	2:12 3.0	8:40 0.6	15:15 3.7	21:33 1.1
	F	8	3:17 3.0	9:36 0.6	16:10 3.9	22:40 0.8
	S	9	4:24 3.0	10:33 0.6	17:06 4.1	23:40 0.6
	S	10	5:28 3.1	11:26 0.5	17:51 4.4	. . . . . .
	M	11	0:34 0.3	6:27 3.2	12:20 0.4	18:47 4.7
N	Tu	12	1:24 0.0	7:20 3.3	13:10 0.3	19:34 4.9
●	W	13	2:10 —0.2	8:10 3.5	13:56 0.3	20:21 5.0
	Th	14	2:57 —0.4	8:56 3.6	14:44 0.2	21:08 5.0
P	F	15	3:42 —0.5	9:45 3.7	15:32 0.2	21:55 4.9
	S	16	4:29 —0.4	10:32 3.7	16:24 0.3	22:44 4.6
	S	17	5:14 —0.3	11:25 3.8	17:20 0.4	23:34 4.3
E	M	18	6:08 —0.2	12:17 3.8	18:20 0.6	. . . . . .
	Tu	19	0:30 3.9	6:58 0.1	13:10 3.8	19:21 0.7
☽	W	20	1:27 3.5	7:45 0.3	14:10 3.8	20:31 0.8
	Th	21	2:38 3.2	8:42 0.5	15:10 3.8	21:50 0.9
	F	22	3:45 3.0	9:42 0.6	16:12 3.9	23:05 0.8
	S	23	5:00 2.9	10:42 0.6	17:09 4.1	. . . . . .
	S	24	0:10 0.7	6:06 2.9	11:38 0.6	18:01 4.2
S	M	25	1:02 0.6	7:02 2.9	12:29 0.6	18:50 4.3
	Tu	26	1:45 0.5	7:45 3.0	13:15 0.5	19:31 4.4
○	W	27	2:20 0.4	8:22 3.1	13:55 0.6	20:10 4.4
	Th	28	2:50 0.3	8:54 3.1	14:34 0.6	20:48 4.3
	F	29	3:22 0.2	9:25 3.2	15:08 0.7	21:23 4.2
	S	30	3:52 0.2	9:57 3.3	15:42 0.8	22:00 4.0
A	S	31	4:25 0.1	10:30 3.4	16:18 0.8	22:34 3.9

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	5:00 0.2	11:08 3.5	17:00 0.8	23:11 3.7
	Tu	2	5:34 0.3	11:50 3.6	17:47 0.9	23:50 3.5
	W	3	6:15 0.4	12:37 3.7	18:37 0.9	. . . . . .
	Th	4	0:35 3.3	7:02 0.5	13:30 3.7	19:41 0.9
☾	F	5	1:32 3.1	7:54 0.7	14:30 3.7	20:52 0.9
	S	6	2:37 3.0	8:53 0.8	15:32 3.9	22:05 0.8
	S	7	3:58 2.9	10:00 0.7	16:33 4.1	23:12 0.6
N	M	8	5:02 3.0	11:00 0.6	17:30 4.4	. . . . . .
	Tu	9	0:10 0.3	6:08 3.2	12:00 0.4	18:25 4.6
	W	10	1:03 0.0	7:03 3.4	12:55 0.2	19:16 4.8
●	Th	11	1:50 —0.3	7:52 3.7	13:47 0.1	20:04 5.0
P	F	12	2:37 —0.4	8:40 3.8	14:36 —0.1	20:52 5.0
	S	13	3:18 —0.5	9:26 4.0	15:23 —0.1	21:39 4.8
E	S	14	4:02 —0.5	10:11 4.1	16:12 0.0	22:26 4.6
	M	15	4:46 —0.3	11:00 4.1	17:05 0.1	23:16 4.2
	Tu	16	5:31 —0.1	11:45 4.1	17:57 0.3	. . . . . .
	W	17	0:07 3.8	6:18 0.2	12:40 4.0	18:57 0.5
☽	Th	18	1:02 3.4	7:12 0.5	13:37 3.9	20:08 0.7
	F	19	2:07 3.1	8:09 0.7	14:38 3.8	21:25 0.9
	S	20	3:22 2.8	9:15 0.8	15:42 3.8	22:43 1.0
S	S	21	4:42 3.0	10:20 0.8	16:44 3.9	23:49 0.9
	M	22	5:52 2.9	11:21 0.8	17:40 3.9	. . . . . .
	Tu	23	0:39 0.7	6:46 2.9	12:16 0.7	18:27 4.0
	W	24	1:20 0.6	7:25 3.1	13:02 0.6	19:10 4.1
	Th	25	1:52 0.4	7:57 3.2	13:42 0.6	19:49 4.1
○	F	26	2:19 0.3	8:26 3.4	14:16 0.5	20:35 4.1
A	S	27	2:48 0.2	8:54 3.5	14:50 0.5	21:00 4.1
	S	28	3:17 0.2	9:25 3.7	15:23 0.5	21:32 3.9
E	M	29	3:47 0.2	9:57 3.8	16:00 0.5	22:04 3.8
	Tu	30	4:20 0.2	10:30 3.9	16:35 0.5	22:40 3.7
	W	31	4:55 0.3	11:10 3.9	17:17 0.5	23:20 3.5

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	5:32 0.5	11:57 3.8	18:10 0.6	. . . . . .
	F	2	0:06 3.3	6:17 0.7	12:50 3.8	19:11 0.6
☾	S	3	1:02 3.1	7:10 0.8	13:50 3.8	20:21 0.7
	S	4	2:10 3.0	8:17 0.9	14:55 3.8	21:35 0.7
N	M	5	3:30 2.9	9:30 0.9	16:02 4.0	22:43 0.5
	Tu	6	4:46 3.1	10:42 0.7	17:05 4.2	23:44 0.3
	W	7	5:50 3.3	11:45 0.4	18:04 4.4	. . . . . .
	Th	8	0:37 0.0	6:45 3.7	12:43 0.1	18:57 4.6
	F	9	1:26 —0.3	7:32 4.0	13:34 —0.1	19:46 4.7
P ●	S	10	2:08 —0.4	8:17 4.2	14:22 —0.3	20:34 4.7
E	S	11	2:52 —0.5	9:00 4.4	15:12 —0.3	21:22 4.6
	M	12	3:35 —0.4	9:45 4.5	15:57 —0.3	22:07 4.4
	Tu	13	4:18 —0.2	10:30 4.4	16:44 0.1	22:54 4.0
	W	14	5:00 0.1	11:16 4.3	17:37 0.2	23:42 3.6
	Th	15	5:48 0.4	12:05 4.1	18:35 0.4	. . . . . .
	F	16	0:36 3.2	6:37 0.7	13:02 3.9	19:38 0.7
☽ S	S	17	1:40 2.9	7:37 0.9	14:02 3.7	20:50 0.9
	S	18	3:00 2.7	8:47 1.1	15:09 3.6	22:06 1.0
	M	19	4:22 2.7	10:00 1.1	16:13 3.6	23:10 0.9
	Tu	20	5:28 2.9	11:05 1.0	17:12 3.6	23:59 0.7
	W	21	6:17 3.1	12:00 0.8	18:03 3.7	. . . . . .
	Th	22	0:38 0.6	6:52 3.3	12:46 0.7	18:47 3.8
A	F	23	1:12 0.4	7:25 3.5	13:25 0.6	19:28 3.8
	S	24	1:42 0.3	7:52 3.7	13:59 0.5	20:00 3.9
○ E	S	25	2:15 0.2	8:23 3.9	14:31 0.3	20:33 3.8
	M	26	2:43 0.2	8:55 4.0	15:05 0.3	21:05 3.8
	Tu	27	3:15 0.2	9:27 4.1	15:36 0.2	21:38 3.8
	W	28	3:43 0.3	10:00 4.1	16:16 0.2	22:15 3.6
	Th	29	4:16 0.4	10:40 4.1	17:00 0.2	22:55 3.5
	F	30	4:52 0.6	11:26 4.1	17:52 0.3	23:44 3.3

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	OCTOBER.					
	S	1	5:38 0.8	12:17 3.9	18:52 0.5	. . . . . .
N ☾	S	2	0:42 3.1	6:33 1.0	13:18 3.8	19:57 0.5
	M	3	1:55 3.0	7:47 1.0	14:25 3.8	21:09 0.5
	Tu	4	3:15 3.0	9:12 1.0	15:34 3.8	22:17 0.4
	W	5	4:30 3.2	10:17 0.7	16:42 4.0	23:17 0.2
	Th	6	5:30 3.5	11:35 0.4	17:42 4.2	. . . . . .
	F	7	0:10 0.0	6:24 3.9	12:30 0.1	18:40 4.3
P E	S	8	0:56 —0.2	7:10 4.3	13:21 —0.2	19:31 4.4
●	S	9	1:44 —0.3	7:54 4.5	14:07 —0.3	20:18 4.4
	M	10	2:25 —0.3	8:35 4.7	14:52 —0.4	21:02 4.3
	Tu	11	3:06 —0.2	9:18 4.7	15:39 —0.4	21:47 4.0
	W	12	3:47 0.0	10:00 4.6	16:26 —0.2	22:31 3.7
	Th	13	4:27 0.3	10:46 4.4	17:16 0.1	23:19 3.4
	F	14	5:10 0.6	11:37 4.2	18:10 0.3	. . . . . .
S	S	15	0:10 3.1	6:00 1.0	12:26 3.8	19:10 0.6
☽	S	16	1:15 2.8	7:00 1.0	13:25 3.6	20:12 0.7
	M	17	2:31 2.7	8:14 1.3	14:28 3.4	21:16 0.9
	Tu	18	3:48 2.8	9:34 1.3	15:33 3.3	22:17 0.8
	W	19	4:50 2.9	10:42 1.1	16:37 3.3	23:08 0.7
	Th	20	5:34 3.2	11:40 1.0	17:33 3.4	23:50 0.6
A	F	21	6:10 3.4	12:24 0.8	18:19 3.5	. . . . . .
E	S	22	0:18 0.5	6:40 3.7	12:59 0.6	18:56 3.5
	S	23	1:07 0.3	7:17 3.9	13:32 0.4	19:35 3.6
○	M	24	1:39 0.3	7:50 4.1	14:07 0.2	20:07 3.7
	Tu	25	2:08 0.2	8:24 4.3	14:45 0.1	20:40 3.7
	W	26	2:38 0.3	8:58 4.4	15:21 0.0	21:15 3.6
	Th	27	3:10 0.4	9:35 4.4	16:02 —0.1	21:55 3.5
	F	28	3:43 0.5	10:17 4.4	16:47 0.0	22:40 3.4
N	S	29	4:22 0.7	11:02 4.2	17:37 0.1	23:30 3.3
	S	30	5:10 0.9	11:54 4.1	18:35 0.2	. . . . . .
	M	31	0:32 3.1	6:10 1.0	12:53 3.9	19:37 0.3

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	NOVEMBER.					
☾	Tu	1	1:42 3.1	7:29 1.1	14:00 3.8	20:41 0.4
	W	2	2:58 3.1	8:55 1.0	15:11 3.7	21:46 0.3
	Th	3	4:05 3.4	10:18 0.8	16:21 3.8	22:45 0.3
	F	4	5:02 3.7	11:17 0.5	17:25 3.8	23:40 0.1
E P	S	5	5:52 4.1	12:13 0.1	18:22 3.9	. . . . . .
	S	6	0:30 0.0	6:41 4.4	13:06 —0.1	19:12 4.0
	M	7	1:15 —0.1	7:28 4.7	13:53 —0.3	20:00 3.9
●	Tu	8	1:57 —0.1	8:10 4.8	14:40 —0.3	20:45 3.8
	W	9	2:38 0.0	8:53 4.8	15:25 —0.3	21:29 3.6
	Th	10	3:17 0.2	9:37 4.7	16:10 —0.2	22:11 3.4
S	F	11	3:58 0.5	10:22 4.5	16:57 0.0	22:57 3.2
	S	12	4:37 0.8	11:05 4.2	17:45 0.3	23:47 3.0
	S	13	5:25 1.0	11:52 3.9	18:35 0.5	. . . . . .
	M	14	0:45 2.9	6:20 1.3	12:45 3.6	19:29 0.6
☽	Tu	15	1:51 2.8	7:32 1.4	13:43 3.3	20:24 0.7
	W	16	2:54 2.9	8:48 1.4	14:47 3.2	21:20 0.8
A	Th	17	3:50 3.0	10:03 1.3	15:50 3.1	22:12 0.7
E	F	18	4:40 3.3	11:02 1.1	16:48 3.1	23:00 0.6
	S	19	5:20 3.6	11:50 0.9	17:36 3.2	23:42 0.5
	S	20	6:03 3.9	12:30 0.7	18:21 3.3	. . . . . .
	M	21	0:24 0.4	6:40 4.1	13:10 0.4	19:02 3.4
	Tu	22	1:02 0.4	7:18 4.4	13:47 0.2	19:40 3.4
○	W	23	1:37 0.3	7:56 4.6	14:27 0.0	20:18 3.4
	Th	24	2:10 0.4	8:36 4.7	15:07 —0.2	21:00 3.5
	F	25	2:46 0.4	9:16 4.7	15:50 —0.2	21:42 3.4
N	S	26	3:23 0.5	10:00 4.6	16:37 —0.2	22:28 3.4
	S	27	4:07 0.7	10:46 4.4	17:25 —0.1	23:21 3.3
	M	28	4:58 0.8	11:36 4.2	18:17 0.0	. . . . . .
	Tu	29	0:21 3.2	6:00 1.0	12:33 4.0	19:14 0.2
☾	W	30	1:26 3.3	7:15 1.0	13:37 3.8	20:13 0.3

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	DECEMBER.					
	Th	1	2:31 3.4	8:37 1.0	14:46 3.6	21:12 0.3
	F	2	3:36 3.6	9:52 0.8	15:57 3.5	22:12 0.3
E P	S	3	4:37 3.9	11:00 0.6	17:03 3.5	23:10 0.2
	S	4	5:29 4.2	12:08 0.4	18:04 3.5	. . . . . .
	M	5	0:02 0.2	6:20 4.5	12:56 0.1	18:58 3.5
	Tu	6	0:50 0.1	7:06 4.7	13:43 0.0	19:47 3.4
●	W	7	1:34 0.2	7:51 4.8	14:30 —0.1	20:31 3.4
	Th	8	2:15 0.2	8:32 4.8	15:13 —0.1	21:12 3.3
S	F	9	2:53 0.4	9:15 4.7	15:53 0.0	21:53 3.2
	S	10	3:32 0.6	9:56 4.5	16:35 0.0	22:35 3.1
	S	11	4:12 0.8	10:38 4.3	17:16 0.2	23:20 3.1
	M	12	4:55 1.0	11:20 4.0	18:00 0.3	. . . . . .
	Tu	13	0:08 3.0	5:45 1.2	12:06 3.6	18:45 0.4
	W	14	1:00 3.0	6:43 1.3	12:55 3.3	19:30 0.6
☽ A	Th	15	1:52 3.1	7:50 1.4	13:50 3.1	20:20 0.7
E	F	16	2:50 3.2	9:02 1.4	14:46 2.9	21:11 0.7
	S	17	3:45 3.4	10:10 1.3	15:48 2.9	22:02 0.7
	S	18	4:37 3.7	11:07 1.0	16:49 2.9	22:55 0.6
	M	19	5:22 3.9	11:58 0.8	17:42 3.0	23:45 0.5
	Tu	20	6:08 3.2	12:44 0.5	18:34 3.1	. . . . . .
	W	21	0:29 0.5	6:52 4.5	13:29 0.2	19:20 3.2
	Th	22	1:11 0.4	7:34 4.7	14:11 —0.1	20:03 3.3
○ N	F	23	1:50 0.4	8:18 4.8	14:55 —0.3	20:47 3.4
	S	24	2:33 0.4	9:02 4.9	15:37 —0.4	21:32 3.5
	S	25	3:17 0.4	9:45 4.8	16:23 —0.4	22:20 3.5
	M	26	4:02 0.5	10:31 4.6	17:08 —0.3	23:10 3.5
	Tu	27	4:55 0.5	11:20 4.4	17:57 —0.2	. . . . . .
P	W	28	0:06 3.5	5:54 0.7	12:15 4.0	18:48 0.0
E	Th	29	1:02 3.6	7:03 0.8	13:15 3.7	19:40 0.2
☾	F	30	2:02 3.7	8:14 0.8	14:20 3.4	20:39 0.4
	S	31	3:06 3.8	9:30 0.8	15:29 3.2	21:39 0.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:47	6:39	12:23	19:12		M	1	2:16	8:12	13:45	20:35	P	Tu	1	1:43	7:50	13:30	20:12
			1.6	0.5	1.7	—0.3				1.8	.5	1.7	—0.5				1.7	0.5	1.7	—0.3
N	S	2	1:42	7:42	13:16	20:05	○	Tu	2	3:10	9:14	14:43	21:27	○	W	2	2:39	8:48	14:30	21:08
			1.7	0.5	1.8	—0.4	P			1.8	0.5	1.7	—0.5				1.8	0.4	1.8	—0.3
☽	S	3	2:41	8:40	14:09	20:56		W	3	4:00	10:07	15:41	22:20	E	Th	3	3:29	9:41	15:31	22:00
			1.8	0.5	1.8	—0.5				1.9	0.4	1.8	—0.5				1.8	0.2	1.8	—0.3
P	M	4	3:35	9:36	15:00	21:47		Th	4	4:46	10:58	16:35	23:08		F	4	4:17	10:30	16:26	22:50
			1.9	0.5	1.8	—0.6				1.9	0.2	1.8	—0.4				1.9	0.1	1.9	—0.2
	Tu	5	4:25	10:28	15:53	22:36	E	F	5	5:30	11:45	17:29	23:57		S	5	5:00	11:17	17:19	23:38
			2.0	0.5	1.7	—0.6				1.9	0.1	1.8	—0.3				1.9	0.0	1.9	—0.1
	W	6	5:13	11:19	16:47	23:24		S	6	6:11	12:32	18:23	. . .		S	6	5:46	12:02	18:12	. . .
			2.1	0.4	1.7	—0.5				2.0	0.0	1.8	. . .				1.9	—0.1	1.9	. . .
	Th	7	5:57	12:07	17:38	. . .		S	7	0:45	6:55	13:17	19:17		M	7	0:22	6:25	12:47	19:02
			2.1	0.3	1.8	. . .				—0.1	2.0	0.0	1.8				0.0	1.9	—0.2	1.8
E	F	8	0:12	6:40	12:57	18:34	☾	M	8	1:30	7:38	14:04	20:11		Tu	8	1:12	7:05	13:33	19:48
			—0.4	2.0	0.2	1.7				0.0	1.9	—0.1	1.7				0.1	1.8	—0.2	1.8
	S	9	1:02	7:25	13:45	19:30		Tu	9	2:21	8:19	14:53	21:06	☾	W	9	1:57	7:46	14:20	20:38
			—0.3	2.0	0.1	1.7				0.2	1.8	—0.1	1.6				0.3	1.8	—0.2	1.7
☾	S	10	1:50	8:06	14:33	20:29		W	10	3:08	9:02	15:44	22:05	S	Th	10	2:41	8:27	15:08	21:30
			—0.1	2.0	0.1	1.6				0.4	1.8	—0.1	1.5				0.4	1.7	—0.1	1.6
	M	11	2:40	8:52	15:25	21:30		Th	11	3:56	9:47	16:37	23:00		F	11	3:30	9:12	15:57	22:20
			0.1	1.9	0.0	1.6				0.5	1.7	—0.2	1.4				0.5	1.6	—0.1	1.5
	Tu	12	3:35	9:36	16:16	22:32	S	F	12	4:50	10:35	17:30	. . .		S	12	4:22	10:02	16:49	23:16
			0.3	1.8	—0.1	1.5				0.6	1.7	—0.1	. . .				0.6	1.6	0.0	1.5
	W	13	4:26	10:22	17:10	23:36		S	13	0:00	5:47	11:24	18:24		S	13	5:18	10:55	17:42	. . .
			0.5	1.7	—0.1	1.5				1.4	0.7	1.6	—0.1				0.6	1.5	0.0	. . .
	Th	14	5:24	11:10	18:05	. . .		S	14	0:58	6:47	12:17	19:15	A	M	14	0:08	6:17	11:52	18:37
			0.5	1.7	—0.2	. . .				1.4	0.7	1.5	—0.1				1.5	0.6	1.5	0.1
S	F	15	0:40	6:21	12:00	18:57		M	15	1:50	7:44	13:13	20:05		Tu	15	1:00	7:15	12:51	19:30
			1.5	0.7	1.6	—0.2				1.5	0.7	1.5	—0.1				1.5	0.5	1.5	0.1
	S	16	1:37	7:17	12:48	19:47	A	Tu	16	2:37	8:38	14:07	20:52		W	16	1:50	8:07	13:48	20:21
			1.5	0.7	1.6	—0.2	●			1.5	0.6	1.5	—0.1				1.6	0.5	1.5	0.1
	S	17	2:27	8:16	13:38	20:36		W	17	3:20	9:27	14:58	21:36	●	Th	17	2:37	8:56	14:44	21:10
			1.6	0.7	1.6	—0.2				1.7	0.5	1.5	—0.1				1.6	0.4	1.6	0.1
●	M	18	3:15	9:07	14:29	21:20		Th	18	4:00	10:14	15:49	22:20	E	F	18	3:22	9:40	15:35	21:55
			1.6	0.7	1.5	—0.3				1.7	0.4	1.6	—0.1				1.7	0.2	1.6	0.1
	Tu	19	3:56	9:55	15:17	22:01	E	F	19	4:40	10:55	16:36	23:00		S	19	4:05	10:21	16:25	22:40
			1.7	0.6	1.5	—0.3				1.8	0.3	1.6	—0.1				1.8	0.1	1.7	0.1
A	W	20	4:35	10:40	16:03	22:42		S	20	5:16	11:35	17:24	23:43		S	20	4:45	11:08	17:11	23:23
			1.8	0.5	1.6	—0.3				1.8	0.2	1.7	0.0				1.8	0.0	1.8	0.1
	Th	21	5:12	11:25	16:51	23:22		S	21	5:57	12:15	18:14	. . .		M	21	5:24	11:44	17:57	. . .
			1.8	0.4	1.6	—0.2				1.9	0.1	1.7	. . .				1.8	—0.1	1.9	. . .
	F	22	5:50	12:06	17:38	. . .		M	22	0:26	6:39	12:58	19:04		Tu	22	0:09	6:03	12:27	18:41
			1.9	0.3	1.6	. . .				0.0	1.9	0.0	1.7				0.1	1.8	—0.2	1.9
E	S	23	0:03	6:28	12:48	18:28		Tu	23	1:12	7:18	13:42	19:53		W	23	0:56	6:44	13:11	19:32
			—0.2	1.9	0.2	1.6				0.1	1.9	—0.1	1.7				0.2	1.8	—0.3	1.9
	S	24	0:45	7:07	13:30	19:20	☽	W	24	2:01	8:00	14:30	20:45		Th	24	1:43	7:28	13:59	20:24
			—0.1	2.0	0.1	1.6				0.2	1.8	—0.2	1.8				0.3	1.8	—0.3	1.9
	M	25	1:30	7:48	14:16	20:13		Th	25	2:50	8:45	15:20	21:37	N	F	25	2:33	8:14	14:49	21:17
			0.0	1.9	0.0	1.6				0.3	1.8	—0.2	1.7	☽			0.4	1.8	—0.3	1.8
☽	Tu	26	2:21	8:33	15:04	21:10	N	F	26	3:42	9:34	16:14	22:40		S	26	3:26	9:06	15:43	22:14
			0.1	1.9	0.0	1.6				0.4	1.8	—0.2	1.7				0.4	1.7	—0.3	1.8
	W	27	3:13	9:17	15:55	22:09		S	27	4:40	10:27	17:12	23:43		S	27	4:22	10:02	16:43	23:12
			0.3	1.8	—0.1	1.6				0.5	1.7	—0.3	1.7				0.5	1.7	—0.2	1.7
	Th	28	4:06	10:05	16:47	23:10		S	28	5:44	11:25	18:13	. . .		M	28	5:24	11:04	17:44	. . .
			0.4	1.8	—0.2	1.6				0.5	1.7	—0.3	. . .				0.5	1.7	—0.2	. . .
	F	29	5:07	10:57	17:45	. . .		M	29	0:45	6:48	12:27	19:13		Tu	29	0:10	6:26	12:11	18:48
			0.5	1.8	—0.3	. . .				1.5	0.5	1.7	—0.3				1.7	0.4	1.7	—0.1
N	S	30	0:13	6:10	11:50	18:42								P	W	30	1:08	7:24	13:17	19:50
			1.7	0.6	1.8	—0.3											1.7	0.3	1.7	—0.1
	S	31	1:15	7:12	12:47	19:39								E	Th	31	2:04	8:20	14:21	20:46
			1.7	0.6	1.7	—0.4								○			1.7	0.2	1.7	0.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.9 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:57	9:10	15:20	21:41		S	1	3:02	9:34	15:58	22:10		W	1	3:51	10:37	17:14	23:14
			1.8	0.0	1.8	0.0				1.7	—0.3	1.9	0.3				1.6	—0.4	1.9	0.5
	S	2	3:42	10:00	16:12	22:32		M	2	3:46	10:20	16:47	22:57		Th	2	4:36	11:20	17:55	. . .
			1.8	—0.1	1.9	0.0				1.7	—0.3	1.9	0.3				1.6	—0.4	1.9	. . .
	S	3	4:25	10:47	17:02	23:20		Tu	3	4:30	11:04	17:34	23:40		F	3	0:00	5:22	12:00	18:35
			1.8	—0.2	1.9	0.1				1.7	—0.4	1.9	0.4				0.5	1.6	—0.3	1.9
	M	4	5:07	11:32	17:51	. . .	S	W	4	5:10	11:48	18:18	. . .		S	4	0:46	6:07	12:40	19:15
			1.8	—0.3	1.9	. . .				1.7	—0.4	1.9	. . .				0.5	1.6	—0.2	1.9
	Tu	5	0:07	5:46	12:16	18:38		Th	5	0:26	5:53	12:30	19:00	A	S	5	1:33	6:55	13:22	19:55
			0.2	1.8	—0.3	1.9				0.4	1.6	—0.3	1.9				0.4	1.5	—0.1	1.9
S	W	6	0:50	6:28	13:00	19:25		F	6	1:10	6:36	13:11	19:43	☾	M	6	2:18	7:47	14:07	20:35
			0.3	1.8	—0.3	1.8				0.4	1.6	—0.3	1.8				0.4	1.4	0.0	1.9
	Th	7	1:34	7:10	13:47	20:10	☾	S	7	1:58	7:23	13:55	20:26		Tu	7	3:03	8:40	14:54	21:19
			0.4	1.7	—0.2	1.8				0.4	1.6	—0.1	1.8				0.3	1.4	0.1	1.8
☾	F	8	2:20	7:52	14:30	20:57		S	8	2:46	8:12	14:40	21:10	E	W	8	3:52	9:38	15:47	22:06
			0.4	1.6	—0.1	1.7				0.4	1.5	0.0	1.8				0.2	1.4	0.2	1.8
	S	9	3:07	8:40	15:17	21:43	A	M	9	3:34	9:07	15:30	21:55		Th	9	4:45	10:41	16:43	22:53
			0.5	1.6	—0.1	1.6				0.4	1.4	0.1	1.7				0.2	1.4	0.3	1.8
	S	10	3:59	9:34	16:07	22:33		Tu	10	4:23	10:05	16:19	22:42		F	10	5:36	11:43	17:42	23:41
			0.5	1.5	0.0	1.6				0.4	1.4	0.2	1.7				0.0	1.5	0.4	1.7
A	M	11	4:53	10:27	17:00	23:24	E	W	11	5:16	11:07	17:17	23:35		S	11	6:25	12:45	18:42	. . .
			0.5	1.4	0.1	1.6				0.3	1.4	0.3	1.7				0.0	1.5	0.5	. . .
	Tu	12	5:45	11:30	17:55	. . .		Th	12	6:09	12:10	18:22	. . .		S	12	0:31	7:17	13:41	19:40
			0.5	1.4	0.2	. . .				0.2	1.5	0.3	. . .				1.7	—0.2	1.7	0.5
	W	13	0:15	6:40	12:32	18:57		F	13	0:28	7:00	13:12	19:17		M	13	1:21	8:06	14:36	20:38
			1.6	0.4	1.4	0.2				1.7	0.1	1.5	0.4				1.7	—0.3	1.7	0.5
E	Th	14	1:06	7:31	13:33	19:49		S	14	1:12	7:49	14:05	20:13	●	Tu	14	2:08	8:54	15:30	21:31
			1.6	0.3	1.5	0.2				1.7	0.0	1.6	0.4	N			1.7	—0.4	1.9	0.5
	F	15	1:59	8:21	14:29	20:42	●	S	15	2:00	8:36	14:57	21:07		W	15	2:57	9:43	16:20	22:25
			1.6	0.2	1.6	0.2				1.7	—0.2	1.8	0.4				1.7	—0.5	1.9	0.5
●	S	16	2:44	9:06	15:20	21:32		M	16	2:45	9:21	15:49	21:59		Th	16	3:47	10:29	17:08	23:14
			1.7	0.1	1.7	0.2				1.7	—0.3	1.9	0.4				1.7	—0.5	2.0	0.5
	S	17	3:25	9:50	16:06	22:21		Tu	17	3:30	10:06	16:39	22:47	P	F	17	4:37	11:19	17:55	. . .
			1.7	—0.1	1.8	0.2				1.7	—0.4	2.0	0.4				1.7	—0.5	2.0	. . .
	M	18	4:06	10:32	16:52	23:07	N	W	18	3:46	10:51	17:26	23:35		S	18	0:05	5:29	12:05	18:41
			1.7	—0.2	1.9	0.2				1.7	—0.5	2.0	0.4				0.4	1.7	—0.5	2.1
	Tu	19	4:49	11:17	17:40	23:55		Th	19	5:00	11:36	18:14	. . .		S	19	0:56	6:21	12:54	19:26
			1.7	—0.3	2.0	0.3				1.7	—0.5	2.0	. . .				0.4	1.7	—0.4	2.0
	W	20	5:28	12:00	18:29	. . .		F	20	0:24	5:47	12:24	19:00		M	20	1:45	7:17	13:44	20:12
			1.8	—0.4	2.0	. . .				0.4	1.7	—0.5	2.1				0.3	1.7	—0.2	2.0
N	Th	21	0:40	6:14	12:46	19:16		S	21	1:13	6:37	13:12	19:48	☽	Tu	21	2:33	8:16	14:35	20:56
			0.3	1.7	—0.4	2.0				0.4	1.6	—0.4	2.0	E			0.2	1.6	—0.1	1.9
	F	22	1:27	7:00	13:33	20:06	☽	S	22	2:05	7:31	14:02	20:36		W	22	3:23	9:18	15:30	21:45
			0.4	1.7	—0.4	2.0				0.4	1.6	—0.3	2.0				0.1	1.6	0.1	1.8
☽	S	23	2:19	7:50	14:25	20:57	P	M	23	2:56	8:28	14:55	21:24		Th	23	4:18	10:25	16:30	22:32
			0.4	1.7	—0.3	1.9				0.3	1.6	—0.1	1.9				0.0	1.6	0.3	1.8
	S	24	3:11	8:45	15:19	21:50	E	Tu	24	3:47	9:33	15:52	22:12		F	24	5:14	11:32	17:28	23:20
			0.4	1.6	—0.2	1.9				0.3	1.6	0.0	1.8				—0.1	1.5	0.4	1.7
	M	25	4:07	9:45	16:15	22:41		W	25	4:42	10:40	16:52	23:06		S	25	6:07	12:36	18:27	. . .
			0.4	1.6	—0.1	1.8				0.2	1.6	0.2	1.8				—0.2	1.5	0.5	. . .
	Tu	26	5:04	10:50	17:16	23:36		Th	26	5:38	11:48	18:00	23:57		S	26	0:09	7:00	13:37	19:24
			0.3	1.6	0.0	1.7				0.1	1.6	0.3	1.7				1.7	—0.2	1.6	0.6
P E	W	27	6:00	12:00	18:20	. . .		F	27	6:32	12:51	18:58	. . .	S	M	27	0:58	7:52	14:32	20:20
			0.2	1.6	0.1	. . .				0.0	1.6	0.4	. . .				1.7	—0.3	1.6	0.6
	Th	28	0:33	6:57	13:08	19:22		S	28	0:47	7:27	13:54	19:57	○	Tu	28	1:46	8:41	15:22	21:10
			1.7	0.1	1.7	0.1				1.7	—0.2	1.7	0.5				1.6	—0.4	1.7	0.7
	F	29	1:27	7:52	14:07	20:24	○	S	29	1:34	8:19	14:50	20:52		W	29	2:33	9:26	16:06	22:00
			1.7	0.0	1.7	0.2				1.7	—0.3	1.7	0.5				1.6	—0.4	1.7	0.6
○	S	30	2:16	8:45	15:04	21:20		M	30	2:21	9:08	15:42	21:41		Th	30	3:22	10:10	16:48	22:48
			1.7	—0.1	1.8	0.3				1.7	—0.3	1.7	0.5				1.6	—0.4	1.8	0.6
							S	Tu	31	3:07	9:53	16:29	22:29							
										1.7	—0.4	1.9	0.5							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day: a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.9 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.; 0^h is midnight; 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E., moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:08 1.6	10:51 —0.3	17:27 1.9	23:34 0.5
	S	2	4:55 1.5	11:32 —0.3	18:04 1.9	. . . . . .
A	☉	3	0:20 0.4	5:42 1.5	12:13 —0.2	18:42 1.9
	M	4	1:04 0.4	6:32 1.5	12:54 —0.1	19:21 1.9
E	Tu	5	1:47 0.3	7:22 1.5	13:38 0.0	20:00 1.9
☾	W	6	2:31 0.2	8:16 1.5	14:26 0.1	20:45 1.9
	Th	7	3:21 0.1	9:12 1.5	15:17 0.2	21:30 1.8
	F	8	4:08 0.0	10:12 1.5	16:10 0.4	22:15 1.8
	S	9	4:59 —0.1	11:15 1.5	17:07 0.5	23:08 1.8
	☉	10	5:52 —0.2	12:13 1.6	18:08 0.5	23:54 1.7
	M	11	6:44 —0.3	13:12 1.7	19:09 0.5	. . . . . .
N	Tu	12	0:46 1.7	7:38 —0.4	14:13 1.7	20:10 0.5
●	W	13	1:40 1.8	8:30 —0.5	15:07 1.9	21:06 0.5
	Th	14	2:34 1.8	9:21 —0.5	15:59 2.0	22:00 0.5
P	F	15	3:27 1.8	10:11 —0.5	16:46 2.0	22:52 0.4
	S	16	4:21 1.7	11:00 —0.5	17:31 2.0	23:43 0.3
	☉	17	5:15 1.8	11:50 —0.4	18:17 2.0	. . . . . .
E	M	18	0:32 0.2	6:10 1.7	12:38 —0.3	19:00 2.0
	Tu	19	1:21 0.1	7:05 1.7	13:27 —0.1	19:43 2.0
☽	W	20	2:07 0.0	8:04 1.7	14:17 0.0	20:30 1.9
	Th	21	3:00 0.0	9:03 1.6	15:12 0.2	21:13 1.8
	F	22	3:51 —0.1	10:05 1.6	16:08 0.4	21:57 1.8
	S	23	4:45 —0.1	11:09 1.5	16:57 0.5	22:46 1.7
	☉	24	5:37 —0.2	12:10 1.5	17:54 0.6	23:35 1.7
S	M	25	6:31 —0.2	13:10 1.5	18:53 0.7	. . . . . .
	Tu	26	0:25 1.6	7:26 —0.2	14:05 1.5	19:50 0.7
○	W	27	1:16 1.6	8:14 —0.2	14:52 1.6	20:43 0.7
	Th	28	2:08 1.6	9:01 —0.2	15:35 1.6	21:35 0.6
	F	29	2:58 1.6	9:45 —0.2	16:16 1.7	22:22 0.5
	S	30	3:47 1.6	10:27 —0.2	16:53 1.8	23:06 0.4
A	☉	31	4:35 1.6	11:07 —0.2	17:32 1.8	23:48 0.3

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	5:21 1.6	11:47 —0.1	18:08 1.9	. . . . . .
	Tu	2	0:30 0.2	6:12 1.6	12:29 0.0	18:46 1.9
	W	3	1:11 0.1	7:01 1.6	13:14 0.1	19:30 1.9
	Th	4	1:56 0.0	7:53 1.6	14:02 0.2	20:11 1.9
☾	F	5	2:43 0.0	8:48 1.6	14:50 0.3	20:55 1.8
	S	6	3:32 —0.1	9:44 1.6	15:43 0.4	21:44 1.8
	☉	7	4:23 —0.2	10:42 1.6	16:40 0.5	22:30 1.8
N	M	8	5:17 —0.2	11:43 1.6	17:41 0.5	23:24 1.8
	Tu	9	6:15 —0.3	12:44 1.6	18:42 0.6	. . . . . .
	W	10	0:25 1.7	7:12 —0.3	13:45 1.7	19:43 0.5
●	Th	11	1:18 1.7	8:07 —0.4	14:40 1.8	20:43 0.5
P	F	12	2:16 1.8	9:00 —0.4	15:32 1.9	21:38 0.4
	S	13	3:15 1.8	9:54 —0.4	16:20 1.9	22:30 0.3
E	☉	14	4:10 1.8	10:45 —0.4	17:04 1.9	23:18 0.1
	M	15	5:06 1.8	11:33 —0.3	17:47 2.0	. . . . . .
	Tu	16	0:04 0.0	6:00 1.8	12:20 —0.1	18:32 1.9
	W	17	0:52 —0.1	6:54 1.8	13:10 0.0	19:16 1.9
☽	Th	18	1:40 —0.1	7:48 1.8	14:02 0.2	19:58 1.8
	F	19	2:30 —0.1	8:42 1.7	14:50 0.3	20:41 1.8
	S	20	3:20 —0.1	9:38 1.6	15:38 0.5	21:26 1.7
S	☉	21	4:11 —0.1	10:37 1.5	16:30 0.6	22:13 1.7
	M	22	5:05 —0.1	11:37 1.5	17:26 0.6	23:05 1.6
	Tu	23	6:00 —0.1	12:33 1.5	18:25 0.7	. . . . . .
	W	24	0:00 1.6	6:54 —0.1	13:27 1.5	19:25 0.6
	Th	25	0:55 1.6	7:44 —0.1	14:14 1.6	20:19 0.6
○	F	26	1:51 1.5	8:34 —0.1	14:57 1.6	21:07 0.5
A	S	27	2:42 1.6	9:18 —0.1	15:37 1.7	21:52 0.4
	☉	28	3:33 1.6	10:02 —0.1	16:15 1.8	22:34 0.3
E	M	29	4:21 1.6	10:44 0.0	16:57 1.8	23:15 0.2
	Tu	30	5:07 1.7	11:25 0.0	17:37 1.8	23:55 0.0
	W	31	5:55 1.7	12:07 0.1	18:16 1.8	. . . . . .

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	0:36 0.0	6:42 1.7	12:52 0.1	18:56 1.8
	F	2	1:21 —0.1	7:32 1.8	13:40 0.2	19:36 1.8
☾	S	3	2:05 —0.2	8:20 1.7	14:26 0.3	20:20 1.8
	☉	4	2:56 —0.2	9:14 1.7	15:19 0.4	21:08 1.7
N	M	5	3:47 —0.2	10:12 1.7	16:17 0.5	22:00 1.7
	Tu	6	4:45 —0.2	11:13 1.7	17:18 0.5	22:58 1.7
	W	7	5:44 —0.2	12:14 1.7	18:20 0.5	. . . . . .
	Th	8	0:00 1.7	6:45 —0.2	13:12 1.7	19:22 0.4
	F	9	1:04 1.7	7:44 —0.2	14:07 1.8	20:20 0.3
P	S	10	2:06 1.8	8:42 —0.2	15:01 1.8	21:12 0.2
●	☉	11	3:07 1.8	9:36 —0.2	15:49 1.9	22:03 0.1
	M	12	4:02 1.9	10:27 —0.2	16:35 1.9	22:50 —0.1
	Tu	13	4:57 1.9	11:16 —0.1	17:17 1.9	23:35 —0.1
	W	14	5:47 1.9	12:03 0.0	18:00 1.8	. . . . . .
	Th	15	0:22 —0.2	6:36 1.9	12:52 0.1	18:40 1.8
	F	16	1:09 —0.2	7:25 1.8	13:38 0.3	19:22 1.8
☽	S	17	1:56 —0.2	8:17 1.8	14:24 0.4	20:07 1.7
S	☉	18	2:45 —0.2	9:08 1.7	15:15 0.5	20:52 1.6
	M	19	3:38 —0.1	10:00 1.6	16:07 0.5	21:44 1.6
	Tu	20	4:30 0.0	10:55 1.6	17:01 0.6	22:38 1.5
	W	21	5:22 0.0	11:48 1.5	18:00 0.6	23:37 1.5
	Th	22	6:17 0.1	12:39 1.6	18:58 0.5	. . . . . .
A	F	23	0:37 1.5	7:10 0.1	13:28 1.6	19:48 0.4
	S	24	1:35 1.5	8:02 0.1	14:16 1.6	20:35 0.3
○	☉	25	2:30 1.5	8:51 0.1	15:02 1.7	21:18 0.2
E	M	26	3:20 1.6	9:35 0.1	15:42 1.7	22:00 0.1
	Tu	27	4:07 1.7	10:20 0.1	16:20 1.7	22:42 0.0
	W	28	4:54 1.8	11:06 0.1	17:00 1.8	23:28 —0.1
	Th	29	5:36 1.8	11:50 0.2	17:39 1.8	. . . . . .
	F	30	0:04 —0.2	6:21 1.9	12:34 0.2	18:18 1.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.9 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	0:48	7:08	13:22	19:02	☾	Tu	1	1:56	8:30	14:47	20:17		Th	1	2:30	8:55	15:20	21:04
			—0.3	1.9	0.3	1.8				—0.3	2.0	0.4	1.6				—0.2	1.9	0.3	1.6
N	S	2	1:35	8:00	14:10	19:48		W	2	2:50	9:22	15:40	21:17	E	F	2	3:22	9:45	16:12	22:10
☾			—0.3	1.9	0.4	1.7				—0.2	1.9	0.4	1.6				0.0	1.9	0.2	1.6
	M	3	2:22	8:51	15:02	20:40		Th	3	3:47	10:13	16:35	22:23	P	S	3	4:22	10:38	17:11	23:18
			—0.3	1.8	0.4	1.7				—0.1	1.8	0.3	1.6				0.2	1.8	0.1	1.6
	Tu	4	3:16	9:46	16:00	21:35		F	4	4:47	11:09	17:34	23:34		S	4	5:28	11:29	18:08	. . .
			—0.2	1.8	0.5	1.6				0.0	1.8	0.2	1.6				0.3	1.7	0.0	. . .
	W	5	4:15	10:43	16:57	22:40	E	S	5	5:50	12:05	18:31	. . .		M	5	0:25	6:30	12:20	19:02
			—0.2	1.8	0.4	1.6	P			0.1	1.7	0.1	. . .				1.6	0.4	1.7	—0.2
	Th	6	5:16	11:42	18:00	23:46		S	6	0:42	6:55	13:00	19:27		Tu	6	1:30	7:30	13:10	19:57
			—0.1	1.7	0.4	1.6				1.7	0.2	1.7	0.0				1.6	0.5	1.7	—0.3
	F	7	6:19	12:38	18:57	. . .		M	7	1:42	7:58	13:50	20:21	●	W	7	2:27	8:24	13:59	20:46
			—0.1	1.7	0.3	. . .				1.7	0.2	1.7	—0.2				1.7	0.5	1.7	—0.4
P	S	8	0:54	7:20	13:35	19:52	●	Tu	8	2:41	8:57	14:36	21:10		Th	8	3:23	9:20	14:46	21:32
E			1.7	0.0	1.8	0.1				1.8	0.3	1.7	—0.3				1.8	0.5	1.7	—0.4
●	S	9	1:57	8:20	14:28	20:45		W	9	3:36	9:46	15:20	21:57	S	F	9	4:10	10:10	15:32	22:20
			1.8	0.0	1.8	0.0				1.9	0.3	1.8	—0.4				1.9	0.5	1.7	—0.5
	M	10	2:57	9:16	15:14	21:34		Th	10	4:27	10:38	16:05	22:42		S	10	4:55	10:57	16:19	23:02
			1.8	0.0	1.8	—0.1				1.9	0.4	1.8	—0.4				1.9	0.5	1.7	—0.4
	Tu	11	3:48	10:10	16:00	22:21	S	F	11	5:15	11:22	16:49	23:28		S	11	5:39	11:42	17:04	23:44
			1.9	0.1	1.8	—0.2				2.0	0.4	1.8	—0.4				1.9	0.5	1.7	—0.4
	W	12	4:41	10:59	16:41	23:10		S	12	6:01	12:07	17:33	. . .		M	12	6:17	12:28	17:50	. . .
			2.0	0.1	1.8	—0.3				2.0	0.4	1.7	. . .				1.9	0.5	1.6	. . .
	Th	13	5:30	11:40	17:23	23:54		S	13	0:10	6:42	12:52	18:17		Tu	13	0:26	6:57	13:13	18:38
			2.0	0.2	1.8	—0.4				—0.4	1.9	0.4	1.7				—0.3	1.9	0.4	1.5
	F	14	6:18	12:30	18:06	. . .		M	14	0:53	7:26	13:40	19:03		W	14	1:07	7:36	14:00	19:28
			1.9	0.3	1.8	. . .				—0.3	1.9	0.4	1.6				—0.3	1.9	0.4	1.5
S	S	15	0:40	7:06	18:17	18:48	☽	Tu	15	1:37	8:10	14:28	19:53	☽	Th	15	1:48	8:15	14:46	20:22
			—0.3	1.9	0.4	1.7				—0.2	1.8	0.4	1.5	A			0.0	1.9	0.3	1.4
☽	S	16	1:26	7:52	14:02	19:33		W	16	2:22	8:52	15:17	20:50	E	F	16	2:35	8:57	15:33	21:18
			—0.3	1.9	0.4	1.6				—0.1	1.8	0.4	1.4				0.1	1.8	0.2	1.4
	M	17	2:11	8:40	14:52	20:22	A	Th	17	3:10	9:36	16:06	21:46		S	17	3:27	9:42	16:25	22:20
			—0.2	1.8	0.5	1.6				0.1	1.8	0.4	1.4				0.2	1.8	0.1	1.4
	Tu	18	2:59	9:27	15:44	21:15	E	F	18	4:00	10:21	16:59	22:50		S	18	4:20	10:30	17:15	23:21
			—0.1	1.7	0.5	1.5				0.2	1.7	0.3	1.4				0.4	1.8	0.1	1.4
	W	19	3:48	10:14	16:37	22:12		S	19	4:59	11:12	17:52	23:53		M	19	5:17	11:17	18:08	. . .
			0.0	1.7	0.5	1.4				0.3	1.7	0.2	1.4				0.5	1.7	0.0	. . .
	Th	20	4:40	11:02	17:29	23:14		S	20	6:00	12:00	18:42	. . .		Tu	20	0:24	6:14	12:07	18:57
			0.1	1.6	0.4	1.4				0.4	1.7	0.1	. . .				1.5	0.5	1.7	—0.1
A	F	21	5:37	11:53	18:23	. . .		M	21	0:55	6:55	12:48	19:30		W	21	1:22	7:15	12:56	19:47
			0.2	1.6	0.3	. . .				1.5	0.5	1.7	0.0				1.6	0.5	1.7	—0.3
E	S	22	0:18	6:32	12:47	19:15		Tu	22	1:50	7:51	13:36	20:17		Th	22	2:16	8:12	13:46	20:35
			1.4	0.3	1.6	0.2				1.6	0.4	1.7	—0.1				1.7	0.6	1.7	—0.4
	S	23	1:18	7:30	13:34	20:02	○	W	23	2:40	8:46	14:20	21:03	○	F	23	3:10	9:10	14:35	21:22
			1.5	0.3	1.6	0.2				1.7	0.4	1.6	—0.3	N			1.8	0.5	1.7	—0.5
○	M	24	2:13	8:24	14:18	20:49		Th	24	3:30	9:34	15:07	21:45		S	24	4:00	10:02	15:25	22:08
			1.6	0.3	1.6	0.0				1.8	0.4	1.7	—0.4				1.9	0.5	1.7	—0.5
	Tu	25	3:02	9:13	15:00	21:32		F	25	4:18	10:23	15:50	22:32		S	25	4:46	10:52	16:15	22:58
			1.7	0.3	1.7	—0.1				1.9	0.4	1.7	—0.5				2.0	0.5	1.7	—0.5
	W	26	3:48	10:00	15:41	22:14	N	S	26	5:03	11:10	16:37	23:15		M	26	5:32	11:40	17:06	23:41
			1.8	0.3	1.7	—0.2				2.0	0.4	1.7	—0.5				2.0	0.4	1.7	—0.5
	Th	27	4:34	10:45	16:22	22:53		S	27	5:50	12:00	17:22	. . .		Tu	27	6:17	12:30	17:56	. . .
			1.9	0.3	1.7	—0.3				2.0	0.4	1.7	. . .				2.1	0.4	1.7	. . .
	F	28	5:20	11:30	17:05	23:37		M	28	0:00	6:37	12:48	18:12	P	W	28	0:29	7:00	13:18	18:50
			2.0	0.3	1.7	—0.4				—0.5	2.1	0.4	1.7				—0.4	2.0	0.3	1.7
N	S	29	6:07	12:17	17:47	. . .		Tu	29	0:47	7:21	13:37	19:02	E	Th	29	1:18	7:45	14:07	19:49
			2.0	0.4	1.7	. . .				—0.4	2.0	0.4	1.7				—0.3	2.0	0.2	1.6
	S	30	0:20	6:53	13:06	18:33	☾	W	30	1:37	8:10	14:29	20:00	☾	F	30	2:08	8:28	14:57	20:50
			—0.4	2.0	0.4	1.7				—0.3	2.0	0.3	1.6				—0.1	2.0	0.1	1.6
	M	31	1:08	7:41	13:55	19:22									S	31	3:00	9:15	15:50	21:52
			—0.4	2.0	0.4	1.7											0.1	1.9	0.0	1.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 0.9 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 150th meridian E.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	2:30	9:50	15:54	21:32			M	1	4:08	10:55	17:10	22:46		P	Tu	1	4:05	10:45	16:58	22:46	
			5.6	0.8	4.1	1.8					6.3	—0.1	4.9	1.2					5.9	0.1	5.3	0.9	
N	S	2	3:23	10:25	16:36	22:10		○ P	Tu	2	4:42	11:20	17:32	23:16		○	W	2	4:41	11:10	17:18	23:15	
			6.2	0.1	4.5	1.5					6.7	—0.3	5.3	0.9					6.4	—0.3	5.9	0.4	
○	S	3	4:05	10:57	17:08	22:41			W	3	5:14	11:46	17:52	23:40		E	Th	3	5:12	11:32	17:36	23:38	
			6.7	—0.2	4.8	1.2					6.9	—0.4	5.5	0.6					6.7	—0.4	6.3	0.0	
P	M	4	4:38	11:25	17:31	23:09			Th	4	5:42	12:06	18:12	. . .			F	4	5:37	11:49	17:53	. . .	
			7.0	—0.5	4.9	1.0					6.9	—0.4	5.8	. . .					6.7	—0.3	6.5	. . .	
	Tu	5	5:09	11:50	17:55	23:34		E	F	5	0:05	6:07	12:25	18:32			S	5	0:00	6:00	12:05	18:12	
			7.1	—0.4	5.0	1.0					0.5	6.7	—0.4	6.0					—0.1	6.5	—0.3	6.7	
	W	6	5:36	12:13	18:17	23:59			S	6	0:29	6:32	12:44	18:50			S	6	0:21	6:20	12:21	18:27	
			7.0	—0.3	5.1	0.9					0.4	6.4	—0.2	6.2					—0.2	6.3	—0.2	6.8	
	Th	7	6:04	12:35	18:38	. . .			S	7	0:57	6:55	13:03	19:15			M	7	0:45	6:40	12:37	18:49	
			6.8	—0.2	5.2	. . .					0.5	6.0	0.0	6.2					0.0	6.0	—0.1	6.8	
E	F	8	0:27	6:32	12:59	19:06		☾	M	8	1:27	7:18	13:26	19:48			Tu	8	1:08	7:00	12:57	19:17	
			1.0	6.4	0.0	5.3					0.7	5.5	0.3	6.0					0.2	5.5	0.1	6.6	
	S	9	1:00	7:00	13:24	19:40			Tu	9	1:57	7:45	13:48	20:28		☾	W	9	1:34	7:21	13:31	19:46	
			1.0	5.9	0.3	5.3					1.2	4.8	0.8	5.6					0.7	4.9	0.6	6.2	
☾	S	10	1:40	7:35	13:52	20:22			W	10	2:45	8:12	14:15	21:21		S	Th	10	2:07	8:10	14:10	20:35	
			1.5	5.2	0.8	5.2					2.0	3.9	1.4	5.0					1.4	4.1	1.3	5.5	
	M	11	2:21	8:11	14:22	21:21			Th	11	3:50	8:44	14:45	23:00			F	11	2:45	8:50	15:10	21:40	
			1.9	4.4	1.4	4.9					2.9	3.2	2.2	4.5					2.3	3.2	2.4	4.6	
	Tu	12	3:11	9:06	15:00	22:45		S	F	12	8:35	12:25	19:20	. . .			S	12	3:54	9:20	19:40	. . .	
			2.7	3.5	2.0	4.6					2.7	2.8	3.0	. . .					3.1	3.1	3.3	. . .	
	W	13	7:37	11:24	15:45	. . .			S	13	1:26	9:42	16:32	21:22			S	13	0:00	9:35	14:40	21:20	
			3.0	3.2	2.8	. . .					4.5	1.6	3.5	2.7					4.0	2.0	3.4	2.9	
	Th	14	0:33	9:14	15:06	20:12			S	14	3:21	10:17	16:40	22:05		A	M	14	2:20	9:57	15:50	21:57	
			4.7	2.0	3.2	2.8					5.2	0.7	4.2	1.9					4.5	1.2	4.4	1.9	
S	F	15	2:15	9:52	16:06	21:20			M	15	4:00	10:43	17:02	22:40			Tu	15	3:44	10:23	16:37	22:29	
			5.2	1.0	3.1	2.3					6.0	0.1	5.1	1.2					5.4	0.4	5.3	1.1	
	S	16	3:20	10:25	16:39	22:07		A ●	Tu	16	4:30	11:07	17:22	23:08			W	16	4:20	10:47	16:56	22:56	
			5.9	0.4	4.3	1.7					6.4	—0.3	5.5	0.7					6.0	—0.1	5.9	0.4	
	S	17	4:08	10:55	17:07	22:40			W	17	5:02	11:30	17:50	23:29		● E	Th	17	4:50	11:07	17:15	23:20	
			6.4	—0.1	4.7	1.3					6.7	—0.4	5.8	0.5					6.4	—0.2	6.3	0.1	
●	M	18	4:36	11:19	17:37	23:07			Th	18	5:25	11:48	17:55	23:49			F	18	5:14	11:27	17:30	23:37	
			6.7	—0.3	5.0	1.1					6.7	—0.4	6.0	0.4					6.5	—0.3	6.6	—0.1	
	Tu	19	5:04	11:40	17:50	23:30		E	F	19	5:48	12:02	18:10	. . .			S	19	5:34	11:41	17:46	23:55	
			6.8	—0.3	5.2	1.0					6.7	—0.4	6.2	. . .					6.6	—0.2	6.7	—0.2	
A	W	20	5:28	11:59	18:07	23:50			S	20	0:07	6:07	12:18	18:23			S	20	5:54	11:55	18:02	. . .	
			6.9	—0.3	5.3	0.9					—0.2	6.5	—0.3	6.4					6.4	—0.2	6.9	. . .	
	Th	21	5:50	12:50	18:23	. . .			S	21	0:27	6:26	12:34	18:40			M	21	0:15	6:12	12:10	18:14	
			6.8	—0.1	6.5	. . .					0.1	6.4	—0.3	6.6					—0.3	6.2	—0.2	7.0	
	F	22	0:12	6:12	12:34	18:40			M	22	0:50	6:47	12:54	19:03			Tu	22	0:35	6:30	12:27	18:36	
			0.8	6.7	—0.3	5.7					0.1	6.2	—0.2	6.6					—0.3	5.9	—0.1	7.1	
E	S	23	0:35	6:36	12:50	19:04			Tu	23	1:17	7:10	13:15	19:32			W	23	0:59	6:51	12:49	19:00	
			0.6	6.4	—0.2	5.9					0.3	5.7	0.2	6.3					—0.1	5.5	0.1	6.8	
	S	24	1:06	7:02	13:20	19:33		☽	W	24	1:48	7:37	13:40	20:07			Th	24	1:28	7:15	13:11	19:30	
			0.7	6.0	0.1	5.9					0.7	5.0	0.7	6.0					0.4	4.9	0.6	6.3	
	M	25	1:39	7:30	13:46	20:10			Th	25	2:25	8:05	14:03	20:45		N ☽	F	25	2:00	7:41	13:35	20:20	
			1.0	5.5	0.5	5.7					1.4	4.2	1.4	5.3					1.1	4.2	1.4	5.5	
☽	Tu	26	2:13	8:04	14:16	20:56		N	F	26	3:43	8:50	14:40	22:27			S	26	2:51	8:41	13:50	21:37	
			2.4	4.8	1.0	5.3					2.9	3.2	2.4	4.5					2.0	3.2	2.2	4.5	
	W	27	2:59	8:46	14:47	22:06			S	27	9:00	14:02	18:10	. . .			S	27	4:40	10:20	18:58	. . .	
			2.2	3.8	1.8	4.9					2.9	3.1	2.8	. . .					3.0	3.3	2.9	. . .	
	Th	28	4:19	10:55	15:17	23:57			S	28	1:27	9:52	16:15	21:00			M	28	0:48	8:40	14:10	21:32	
			2.9	3.2	2.8	4.6					4.3	1.6	3.7	2.7					3.7	2.3	3.6	2.7	
	F	29	9:09	15:48	20:00	. . .			M	29	3:12	10:18	16:40	22:15			Tu	29	3:06	9:57	15:08	22:03	
			2.3	3.2	3.0	. . .					5.1	0.8	4.6	1.7					4.5	1.2	4.6	1.5	
N	S	30	1:52	9:52	16:18	21:29										P	W	30	3:55	10:20	15:50	22:32	
			5.0	0.8	3.6	2.4													5.4	0.6	5.5	0.6	
	S	31	3:12	10:25	16:46	22:14										E ○	Th	31	4:31	10:45	16:30	23:02	
			5.6	0.5	4.3	1.8													6.0	0.2	6.2	0.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day: a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon	Day of— W.	Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	5:00 6.4	11:06 —0.1	17:08 6.7	23:26 —0.3
	S	2	5:23 6.3	11:24 —0.1	17:26 6.9	23:46 —0.5
	S	3	5:45 6.1	11:40 —0.1	17:46 7.1	. . . . . .
	M	4	0:09 —0.4	6:02 5.9	11:55 0.0	18:02 7.2
	Tu	5	0:30 —0.2	6:21 5.6	12:10 0.0	18:24 7.1
S	W	6	0:50 0.0	6:39 5.2	12:30 0.3	18:48 6.9
	Th	7	1:14 0.5	7:00 4.8	12:55 0.7	19:30 6.4
☾	F	8	2:00 1.0	7:28 4.3	13:20 1.3	20:00 5.7
	S	9	2:50 1.7	8:00 3.7	14:00 2.1	21:06 4.7
	S	10	3:10 2.6	9:50 3.2	15:06 3.1	22:50 3.9
A	M	11	7:39 2.7	15:25 3.5	21:01 3.1	. . . . . .
	Tu	12	1:30 4.0	9:00 1.7	15:30 4.6	21:24 1.9
	W	13	2:44 4.7	9:45 1.0	15:55 5.4	22:04 1.0
E	Th	14	3:56 5.5	10:12 0.5	16:17 6.0	22:33 0.3
	F	15	4:29 6.0	10:37 0.1	16:40 6.5	22:58 —0.2
●	S	16	4:56 6.1	11:00 0.1	17:00 6.8	23:20 —0.4
	S	17	5:17 6.1	11:16 0.1	17:18 7.0	23:40 —0.5
	M	18	5:38 5.9	11:32 0.2	17:36 7.2	. . . . . .
	Tu	19	0:00 —0.5	5:57 5.6	11:48 0.3	17:52 7.3
	W	20	0:21 —0.3	6:16 5.4	12:04 0.4	18:14 7.2
N	Th	21	0:45 —0.1	6:36 5.0	12:27 0.5	18:38 6.9
	F	22	1:12 0.3	7:02 4.6	12:52 1.0	19:07 6.3
☽	S	23	1:46 0.9	7:50 4.1	13:20 1.6	19:39 5.5
	S	24	2:35 1.7	8:55 3.2	14:19 2.6	20:15 4.4
	M	25	3:40 2.7	9:51 3.2	15:54 2.6	22:40 3.5
	Tu	26	8:30 2.8	14:00 3.7	20:11 2.5	. . . . . .
P E	W	27	2:50 4.0	9:02 1.9	15:07 4.8	21:30 1.5
	Th	28	3:32 4.9	9:40 1.2	15:42 5.6	22:13 0.6
	F	29	4:10 5.4	10:10 0.6	16:10 6.4	22:42 —0.1
○	S	30	4:40 5.6	10:37 0.5	16:36 6.8	23:10 —0.4

Moon	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	5:07 5.6	10:58 0.4	17:00 7.0	23:32 —0.4
	M	2	5:29 5.5	11:16 0.4	17:20 7.2	23:55 —0.3
	Tu	3	5:47 5.2	11:33 0.5	17:40 7.2	. . . . . .
S	W	4	0:14 —0.2	6:07 5.1	11:50 0.6	18:00 7.1
	Th	5	0:35 0.0	6:27 4.9	12:12 0.8	18:25 6.9
	F	6	1:00 0.3	6:50 4.7	12:37 1.0	18:52 6.4
☾	S	7	1:29 0.7	7:23 4.4	13:30 1.5	19:25 5.7
	S	8	2:02 1.3	8:30 4.0	14:20 2.2	20:27 4.9
A	M	9	3:10 1.9	10:00 3.5	15:40 3.0	21:10 4.0
	Tu	10	4:30 2.6	12:26 3.5	19:20 3.2	. . . . . .
E	W	11	0:10 3.7	7:10 2.4	14:07 4.4	20:55 2.2
	Th	12	2:00 4.2	8:47 1.6	14:52 5.2	21:32 1.2
	F	13	3:15 4.9	9:25 1.1	15:28 6.0	22:05 0.4
	S	14	3:59 5.2	10:00 0.7	16:00 6.5	22:37 —0.1
●	S	15	4:32 5.5	10:30 0.7	16:27 6.8	23:02 —0.3
	M	16	5:00 5.3	10:52 0.7	16:51 7.0	23:27 —0.3
	Tu	17	5:25 5.2	11:10 0.8	17:13 7.2	23:50 —0.3
N	W	18	5:50 5.0	11:30 0.9	17:35 7.2	. . . . . .
	Th	19	0:13 —0.2	6:10 4.8	11:50 0.9	17:57 7.0
	F	20	0:37 0.0	6:32 4.6	12:13 1.0	18:25 6.7
	S	21	1:05 0.3	7:02 4.5	12:45 1.3	19:10 6.2
☽	S	22	1:38 0.9	7:43 4.2	13:22 1.8	19:50 5.3
P	M	23	2:14 1.4	8:50 3.9	14:30 2.6	20:47 4.3
E	Tu	24	3:25 2.1	10:42 3.7	16:10 3.2	22:59 3.5
	W	25	4:54 2.7	12:44 4.1	19:50 2.9	. . . . . .
	Th	26	1:22 3.6	7:30 2.4	14:02 4.9	21:14 1.6
	F	27	2:52 4.1	8:40 1.8	14:54 5.7	21:50 0.8
	S	28	3:46 4.5	9:34 0.4	15:37 6.3	22:27 0.1
○	S	29	4:25 4.8	10:10 1.1	16:10 6.7	22:57 —0.1
	M	30	4:56 4.8	10:37 1.0	16:38 6.9	23:24 —0.1
S	Tu	31	5:20 4.8	11:00 1.0	17:03 7.0	23:40 —0.1

Moon	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	5:42 4.7	11:21 1.1	17:27 7.0	. . . . . .
	Th	2	0:07 0.0	6:03 4.6	11:41 1.1	17:49 6.9
	F	3	0:27 0.1	6:24 4.6	12:05 1.1	18:13 6.7
	S	4	0:50 0.2	6:49 4.6	12:32 1.3	18:42 6.3
A	S	5	1:16 0.5	7:25 4.6	13:10 1.6	19:17 5.7
☾	M	6	1:50 0.8	8:15 4.5	13:54 2.1	20:00 5.0
	Tu	7	2:31 1.2	9:18 4.4	15:10 2.7	21:20 4.2
E	W	8	3:25 1.8	10:52 4.3	16:45 2.9	22:45 3.7
	Th	9	5:00 2.3	12:16 4.5	19:20 2.8	. . . . . .
	F	10	0:35 3.5	6:50 2.3	13:39 5.1	20:45 1.8
	S	11	2:18 3.8	8:18 1.9	14:35 5.7	21:40 0.9
	S	12	3:30 4.2	9:26 1.6	15:22 6.2	22:18 0.4
	M	13	4:18 4.5	10:03 1.4	16:00 6.6	22:51 —0.1
● N	Tu	14	4:54 4.7	10:35 1.3	16:33 6.9	23:18 —0.2
	W	15	5:23 4.7	11:00 1.3	17:02 7.0	23:44 —0.1
	Th	16	5:47 4.6	11:24 1.2	17:27 6.9	. . . . . .
P	F	17	0:12 0.0	6:14 4.6	11:48 1.2	17:56 6.8
	S	18	0:35 0.1	6:36 4.7	12:15 1.1	18:24 6.5
	S	19	0:59 0.3	7:06 4.7	12:50 1.4	18:57 5.9
	M	20	1:28 0.6	7:47 4.7	13:40 1.8	19:46 5.3
☽ E	Tu	21	2:04 1.0	8:37 4.7	14:45 2.3	20:40 4.4
	W	22	2:44 1.6	9:47 4.5	15:45 2.7	22:00 3.6
	Th	23	3:37 2.1	11:12 4.5	18:00 3.0	23:30 3.2
	F	24	5:30 2.6	12:46 4.9	20:10 2.2	. . . . . .
	S	25	1:50 3.3	7:30 2.5	14:04 5.4	21:37 1.2
	S	26	3:20 3.6	8:50 2.1	15:08 6.1	22:14 0.5
S	M	27	4:17 4.1	9:50 1.7	15:51 6.4	22:50 0.1
○	Tu	28	4:55 4.4	10:17 1.4	16:25 6.7	23:16 0.0
	W	29	5:24 4.5	10:57 1.3	16:55 6.7	23:40 0.0
	Th	30	5:45 4.6	11:20 1.3	17:22 6.8	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:02	6:05	11:43	17:46	E	M	1	0:26	6:32	12:28	18:29		Th	1	0:40	6:48	13:04	18:56
			0.1	4.7	1.2	6.7				—0.2	5.6	0.8	6.3				0.0	6.6	0.3	5.6
	S	2	0:20	6:26	12:06	18:12		Tu	2	0:47	6:55	12:57	18:53		F	2	1:00	7:15	13:33	19:22
			0.1	4.8	1.2	6.5				—0.1	5.9	0.7	6.0				0.2	6.5	0.7	5.0
A	S	3	0:40	6:46	12:34	18:37		W	3	1:08	7:22	13:27	19:20	☾	S	3	1:27	7:47	14:10	19:52
			0.0	5.0	1.2	6.3				0.1	6.0	0.9	5.6				0.7	6.1	1.3	4.3
	M	4	1:05	7:17	13:07	19:08	☾	Th	4	1:34	7:56	14:04	19:56		S	4	2:00	8:40	15:00	20:22
			0.1	5.0	1.2	5.9				0.4	5.8	1.2	5.0				1.3	5.5	2.3	3.3
E	Tu	5	1:33	7:54	13:46	19:45		F	5	2:04	8:39	15:00	20:40	N	M	5	2:35	10:00	17:00	23:21
			0.3	5.3	1.5	5.3				0.8	5.6	1.8	4.1				2.2	4.7	3.0	3.3
☾	W	6	2:07	8:50	14:35	20:30		S	6	2:40	9:36	16:15	22:10		Tu	6	5:33	12:20	20:30	. . .
			0.7	5.2	1.9	4.7				1.4	5.2	2.7	3.2				3.1	4.3	2.3	. . .
	Th	7	2:44	9:40	15:21	21:55		S	7	3:30	11:10	19:10	. . .		W	7	4:05	8:40	14:10	21:45
			1.2	5.0	2.4	3.8				2.3	4.8	2.8	. . .				3.3	3.1	4.8	1.1
	F	8	3:44	10:10	17:27	23:29	N	M	8	0:19	4:50	13:02	21:10		Th	8	4:09	9:48	15:30	22:10
			1.9	4.6	2.9	3.2				3.2	3.0	4.8	1.8				4.3	1.9	5.5	0.5
	S	9	4:55	12:27	19:50	. . .		Tu	9	2:40	8:00	14:35	22:01		F	9	4:30	10:24	16:19	22:48
			2.5	4.9	2.5	. . .				3.2	2.9	5.8	0.9				5.1	1.0	6.2	0.0
	S	10	1:30	7:00	13:46	21:15		W	10	4:00	9:50	15:37	22:36	P	S	10	4:53	10:54	16:50	23:12
			3.2	2.7	5.3	1.5				4.0	2.0	5.9	0.2	●			5.8	0.4	6.5	—0.2
	M	11	3:00	8:50	14:53	22:09	●	Th	11	4:49	10:29	16:22	23:05	E	S	11	5:13	11:20	17:20	23:30
			3.6	2.3	5.8	0.7				4.7	1.4	6.4	—0.1				6.3	0.0	6.6	—0.2
N	Tu	12	4:12	9:50	15:44	22:44	P	F	12	5:15	11:00	17:00	23:32		M	12	5:32	11:44	17:44	23:48
			4.0	1.9	6.8	0.2				5.2	0.9	6.6	—0.2				6.6	—0.1	6.5	—0.1
●	W	13	4:55	10:27	16:24	23:15		S	13	5:36	11:27	17:29	23:52		Tu	13	5:52	12:07	18:05	. . .
			4.5	1.6	6.6	—0.1				5.5	0.6	6.6	—0.2				6.7	—0.2	6.2	. . .
	Th	14	5:28	11:00	16:58	23:40	E	S	14	5:57	11:54	17:57	. . .		W	14	0:04	6:10	12:32	18:25
			4.7	1.3	6.8	—0.1				5.8	0.5	6.5	. . .				0.0	6.8	0.0	5.8
P	F	15	5:50	11:27	17:28	. . .		M	15	0:12	6:17	12:18	18:21		Th	15	0:20	6:30	12:52	18:44
			4.9	1.2	6.8	. . .				—0.2	6.0	0.5	6.2				0.1	6.8	0.2	5.3
	S	16	0:05	6:10	11:55	17:57		Tu	16	0:31	6:36	12:45	18:45		F	16	0:40	6:55	13:18	19:05
			—0.2	5.0	1.1	6.6				0.0	6.2	0.4	6.0				0.3	6.6	0.7	4.8
	S	17	0:28	6:34	12:22	18:26		W	17	0:50	7:00	13:13	19:07	☽	S	17	1:10	7:35	14:00	19:40
			0.0	5.2	1.0	6.3				0.1	6.2	0.7	5.5	S			0.8	6.2	1.3	4.1
E	M	18	0:52	6:58	12:54	18:55	☽	Th	18	1:10	7:30	13:43	19:33		S	18	1:40	7:15	14:30	20:20
			0.0	5.4	1.0	5.9				0.4	6.1	1.1	4.8				1.3	5.3	2.1	3.2
	Tu	19	1:18	7:30	13:30	19:27		F	19	1:33	8:07	14:30	20:03		M	19	2:15	9:20	16:10	21:50
			0.3	5.5	1.2	5.3				0.8	5.8	1.7	4.0				2.2	4.7	3.1	3.2
☽	W	20	1:41	8:07	14:08	20:03		S	20	2:05	8:54	15:33	21:06		Tu	20	3:00	11:30	20:00	. . .
			0.7	5.4	1.5	4.7				1.3	5.3	2.6	3.2				3.0	4.0	2.5	. . .
	Th	21	2:10	8:55	15:10	21:00	S	S	21	3:00	10:17	17:10	22:55		W	21	2:40	8:10	13:50	21:20
			1.1	5.3	2.2	3.6				2.1	4.7	3.0	3.2				3.5	3.1	4.4	1.4
	F	22	3:00	10:02	16:25	22:30		M	22	3:30	12:07	20:15	. . .		Th	22	3:45	9:10	15:10	22:00
			1.8	5.0	2.9	3.2				3.0	4.4	2.1	. . .				4.4	2.0	5.2	0.6
	S	23	3:45	11:35	20:00	. . .		Tu	23	4:00	8:46	14:32	21:40	A	F	23	4:11	9:50	15:58	22:23
			2.4	4.8	2.6	. . .				3.3	3.0	5.0	1.2				5.3	1.1	5.8	0.2
	S	24	1:10	5:45	13:14	21:20		W	24	4:03	9:45	15:30	22:23		S	24	4:32	10:30	16:30	22:47
			3.2	3.1	5.0	1.5				4.0	2.2	5.7	0.4				5.9	0.4	6.2	0.0
S	M	25	3:10	8:10	14:44	22:07		Th	25	4:40	10:24	16:14	22:50	○	S	25	4:54	11:04	16:57	23:07
			3.1	2.7	5.5	0.8				4.9	1.5	6.2	—0.1	E			6.4	0.1	6.4	—0.2
	Tu	26	4:25	9:30	15:41	22:40	○	F	26	5:04	10:53	16:45	23:15		M	26	5:10	11:22	17:17	23:23
			3.8	2.1	6.1	0.3				5.4	0.9	6.5	—0.3				6.7	—0.2	6.5	—0.2
○	W	27	4:56	10:25	16:22	23:07	A	S	27	5:25	11:20	17:14	23:35		Tu	27	5:29	11:42	17:36	23:37
			4.4	1.6	6.4	0.0				5.8	0.6	6.5	—0.3				6.8	—0.3	6.3	—0.1
	Th	28	5:20	10:58	16:54	23:30		S	28	5:40	11:39	17:35	23:51		W	28	5:45	12:00	17:55	23:53
			4.8	1.3	6.6	—0.1				6.0	0.4	6.5	—0.2				6.9	—0.3	6.0	0.0
	F	29	5:42	11:24	17:20	23.51	E	M	29	5:56	11:59	17:55	. . .		Th	29	5:58	12:20	18:13	. . .
			5.1	1.1	6.6	—0.1				6.2	0.3	6.4	. . .				7.0	—0.2	5.7	. . .
	S	30	6:00	11:45	17:44	. . .		Tu	30	0:05	6:10	12:15	18:15		F	30	0:09	6:17	12:40	18:31
			5.2	1.0	6.5	. . .				—0.2	6.4	0.2	6.3				0.1	7.0	0.0	5.4
A	S	31	0:10	6:17	12:05	18:05		W	31	0:21	6:26	12:38	18:34							
			—0.2	5.4	0.9	6.5				—0.1	6.6	0.2	6.0							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	0:29 0.4	6:42 6.8	13:08 0.3	18:56 4.9	
N ☾	S	2	0:54 0.7	7:08 6.4	13:41 1.0	19:23 4.3	
	M	3	1:18 1.4	7:50 6.6	14:20 1.9	20:15 3.3	
	Tu	4	1:55 2.2	8:30 4.7	16:00 2.9	22:10 3.2	
	W	5	3:50 3.1	11:40 3.8	21:00 2.3	. . . . . .	
	Th	6	1:40 3.6	8:10 3.0	13:50 4.0	21:10 1.5	
	F	7	2:50 4.5	9:20 1.7	15:10 4.1	21:55 1.0	
P E	S	8	3:20 5.3	10:00 0.7	16:07 5.9	22:20 0.4	
●	S	9	4:21 6.2	10:40 0.1	16:37 6.2	22:45 0.0	
	M	10	4:42 6.7	11:06 —0.3	17:02 6.2	23:05 0.0	
	Tu	11	5:06 6.9	11:30 —0.5	17:25 6.0	23:20 0.0	
	W	12	5:25 7.2	11:52 —0.5	17:47 5.8	23:37 0.1	
	Th	13	5:44 7.2	12:12 —0.3	18:06 5.4	23:52 0.3	
	F	14	6:02 7.2	12:33 0.0	18:22 5.1	. . . . . .	
S	S	15	0:12 0.4	6:27 6.9	12:58 0.4	18:55 4.7	
☽	S	16	0:34 0.8	6:53 6.4	13:30 1.0	19:30 4.0	
	M	17	1:10 1.4	7:30 5.7	14:20 1.7	20:15 3.5	
	Tu	18	1:48 2.3	8:30 4.8	15:30 2.5	21:40 2.2	
	W	19	2:40 3.2	10:10 3.8	19:20 2.8	. . . . . .	
A	Th	20	1:52 3.3	7:40 3.2	12:50 3.8	20:40 1.8	
	F	21	3:07 4.6	9:00 1.9	14:25 4.6	21:21 1.1	
E	S	22	3:30 5.3	9:38 1.1	15:15 5.3	21:49 0.7	
	S	23	3:54 6.1	10:05 —0.1	16:07 5.8	22:13 0.2	
○	M	24	4:17 6.6	10:43 —0.2	16:35 6.0	22:40 0.1	
	Tu	25	4:40 6.9	11:05 —0.4	17:00 6.0	22:58 0.2	
	W	26	5:00 7.1	11:26 —0.5	17:20 5.8	23:15 0.3	
	Th	27	5:17 7.2	11:45 —0.4	17:40 5.5	23:30 0.4	
	F	28	5:36 7.3	12:04 —0.3	18:00 5.3	23:46 0.5	
N	S	29	5:55 7.2	12:27 —0.2	18:17 5.0	. . . . . .	
	S	30	0:07 0.6	6:17 7.0	12:54 0.3	18:42 4.7	
	M	31	0:32 1.0	6:45 6.4	13:24 0.9	19:11 4.2	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
☾	Tu	1	1:15 1.7	7:12 5.6	14:20 1.5	20:10 3.7	
	W	2	2:00 2.4	7:44 5.5	16:00 2.6	22:31 3.2	
	Th	3	3:02 3.1	8:07 3.8	19:10 2.8	. . . . . .	
	F	4	1:10 4.5	7:25 3.0	13:52 3.8	20:30 2.0	
E P	S	5	2:20 4.5	9:05 1.7	15:06 4.6	21:19 1.4	
	S	6	3:10 5.5	9:54 0.7	15:47 5.2	21:46 0.8	
	M	7	3:47 6.3	10:24 —0.2	16:21 5.5	22:18 0.6	
●	Tu	8	4:15 6.9	10:50 0.4	16:50 5.5	22:40 0.4	
	W	9	4:40 7.2	11:17 —0.5	17:12 5.3	23:00 0.4	
	Th	10	5:04 7.3	11:40 —0.5	17:32 5.2	23:18 0.6	
S	F	11	5:24 7.3	12:00 —0.3	17:52 5.0	23:37 0.6	
	S	12	5:46 7.2	12:22 —0.1	18:12 4.9	23:57 0.7	
	S	13	6:08 6.9	12:45 0.3	18:34 4.6	. . . . . .	
	M	14	0:20 1.0	6:32 6.5	13:11 0.6	19:05 4.3	
☽	Tu	15	1:00 1.4	7:10 5.8	13:55 1.1	19:51 4.0	
	W	16	2:00 2.1	8:00 5.0	14:40 1.7	21:05 3.5	
A	Th	17	3:10 3.0	9:10 4.0	16:10 2.4	23:55 3.5	
E	F	18	6:50 3.2	11:30 3.6	18:35 2.5	. . . . . .	
	S	19	1:42 4.3	8:20 2.4	13:30 3.9	20:10 1.8	
	S	20	2:34 5.2	9:10 1.4	14:30 4.4	21:07 1.3	
	M	21	3:10 6.0	9:52 0.5	15:32 5.0	21:41 0.9	
	Tu	22	3:44 6.5	10:21 0.0	16:17 5.3	22:13 0.7	
○	W	23	4:12 6.9	10:50 —0.4	16:47 5.2	22:38 0.7	
	Th	24	4:38 7.2	11:15 —0.4	17:12 5.2	23:00 0.7	
	F	25	5:00 7.3	11:37 —0.4	17:34 5.1	23:17 0.8	
N	S	26	5:22 7.3	12:00 —0.3	17:56 4.9	23:35 0.8	
	S	27	5:44 7.2	12:22 —0.1	18:16 4.8	. . . . . .	
	M	28	0:00 0.9	6:08 6.9	12:47 0.2	18:42 4.7	
	Tu	29	0:27 1.1	6:37 6.3	13:17 0.7	19:18 4.5	
☾	W	30	1:02 1.6	7:08 5.6	13:48 1.1	20:05 4.2	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	2:10 2.3	8:00 4.6	14:45 1.8	21:45 3.9	
E	F	2	3:40 3.1	9:21 3.7	16:15 2.6	23:40 3.9	
P	S	3	7:25 3.2	11:50 3.3	18:50 2.9	. . . . . .	
	S	4	1:10 4.5	8:45 2.0	14:05 3.5	20:10 2.2	
	M	5	2:20 5.4	9:30 1.0	15:10 4.2	21:05 1.6	
	Tu	6	3:18 6.2	10:13 0.3	16:00 4.7	21:56 1.2	
●	W	7	3:55 6.7	10:44 —0.2	16:45 4.8	22:25 1.1	
S	Th	8	4:23 7.0	11:12 —0.3	17:10 4.8	22:51 1.0	
	F	9	4:52 7.2	11:35 —0.3	17:32 4.8	23:11 1.0	
	S	10	5:16 7.2	11:56 —0.2	17:53 4.8	23:32 1.0	
	S	11	5:39 7.1	12:15 0.0	18:15 4.8	23:55 1.1	
	M	12	6:02 6.8	12:38 0.1	18:36 4.8	. . . . . .	
	Tu	13	0:20 1.2	6:27 6.5	13:02 0.2	19:06 4.8	
	W	14	0:54 1.4	6:56 5.9	13:30 0.5	19:48 4.7	
☽ A	Th	15	1:48 1.9	7:32 5.3	14:08 1.0	20:41 4.5	
E	F	16	2:45 2.5	8:35 4.4	15:00 1.5	22:03 4.3	
	S	17	4:05 3.0	10:02 3.5	16:10 2.2	23:49 4.4	
	S	18	6:40 3.1	11:55 3.2	18:09 2.5	. . . . . .	
	M	19	1:16 4.9	8:20 2.2	13:50 3.5	20:13 2.2	
	Tu	20	2:20 5.5	9:25 1.1	15:10 4.2	21:12 1.7	
	W	21	3:10 6.1	10:10 0.4	16:10 4.5	21:55 1.4	
	Th	22	3:50 6.6	10:42 —0.1	16:45 4.7	22:28 1.2	
○ N	F	23	4:25 6.9	11:11 —0.3	17:13 4.9	22:55 1.1	
	S	24	4:53 7.1	11:37 —0.4	17:39 4.9	23:17 1.0	
	S	25	5:20 7.1	12:00 —0.3	18:00 4.8	23:40 1.0	
	M	26	5:45 7.0	12:25 —0.1	18:22 5.0	. . . . . .	
	Tu	27	0:05 0.9	6:10 6.7	12:45 0.0	18:47 5.0	
P	W	28	0:34 1.0	6:40 6.3	13:10 0.2	19:20 5.1	
E	Th	29	1:11 1.3	7:11 5.7	13:37 0.7	19:59 5.0	
☾	F	30	1:52 1.8	7:50 4.8	14:11 1.2	20:51 4.7	
	S	31	2:43 2.1	8:39 4.0	14:50 1.9	22:10 4.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, 135th meridian E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:37 15.9	9:26 1.8	15:00 14.6	21:45 2.3
N	S	2	3:24 16.5	10:16 0.9	15:46 15.3	22:15 1.7
○	S	3	4:07 17.1	11:02 0.2	16:32 15.8	23:19 1.2
P	M	4	4:47 17.3	11:47 —0.2	17:08 16.1	. . . . . .
	Tu	5	0:02 1.1	5:28 17.3	12:28 —0.3	17:56 16.2
	W	6	0:46 1.1	6:10 17.2	13:12 —0.1	18:37 16.2
	Th	7	1:32 1.3	6:55 16.7	13:57 0.2	19:25 15.7
E	F	8	2:18 1.7	7:46 15.7	14:45 1.0	20:22 15.1
	S	9	3:12 2.2	8:46 14.5	15:38 1.7	21:34 14.4
☾	S	10	4:06 2.8	10:00 13.5	16:36 2.5	22:46 13.9
	M	11	5:12 3.2	11:21 13.0	17:40 3.1	. . . . . .
	Tu	12	0:01 14.0	6:24 3.3	12:37 13.1	18:42 3.1
	W	13	1:08 14.4	7:38 3.0	13:42 13.4	20:02 2.8
	Th	14	2:00 14.8	8:47 2.2	14:35 13.7	21:03 2.2
S	F	15	2:50 15.1	9:40 1.9	15:22 13.9	21:56 1.7
	S	16	3:32 15.5	10:25 0.9	16:02 14.1	22:45 1.5
●	S	17	4:12 15.7	11:05 0.7	16:32 14.3	23:20 1.4
	M	18	4:42 15.7	11:40 0.9	17:02 14.7	23:44 1.6
	Tu	19	5:12 15.7	12:12 0.8	17:30 15.0	. . . . . .
A	W	20	0:24 2.0	5:40 15.8	12:40 1.2	17:57 15.4
	Th	21	0:52 2.4	6:05 16.0	13:08 1.5	18:24 15.9
	F	22	1:17 2.7	6:35 16.2	13:34 1.9	19:00 16.2
E	S	23	1:44 2.9	7:12 16.1	14:00 2.3	19:42 16.1
	S	24	2:18 2.9	7:54 15.6	14:35 2.6	20:28 15.6
	M	25	3:04 3.0	8:47 14.5	15:17 3.1	21:25 14.7
☽	Tu	26	3:59 3.4	9:48 13.4	16:10 3.8	22:37 13.7
	W	27	5:08 3.9	11:16 12.4	17:26 4.5	. . . . . .
	Th	28	0:02 13.9	5:32 4.0	12:45 12.6	18:55 4.5
	F	29	1:15 14.3	7:52 3.4	13:49 13.3	20:17 3.8
N	S	30	2:14 15.2	9:00 2.3	14:39 14.2	21:25 2.7
	S	31	3:06 16.0	9:58 1.1	15:32 15.1	22:20 1.6

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	3:52 16.7	10:47 0.2	16:15 15.7	23:07 0.8
P	Tu	2	4:35 17.2	11:30 —0.6	17:00 16.5	23:50 0.2
	W	3	5:17 17.2	12:13 —0.8	17:42 16.9	. . . . . .
	Th	4	0:33 0.1	6:00 17.5	12:54 —0.7	18:23 17.0
E	F	5	1:14 0.2	6:40 17.1	13:36 —0.3	19:05 16.7
	S	6	1:55 0.6	7:24 16.3	14:19 0.5	19:55 16.0
	S	7	2:46 1.4	8:14 16.1	15:07 1.5	20:50 15.1
☾	M	8	3:32 2.2	9:17 13.8	16:00 2.6	22:00 14.0
	Tu	9	4:38 3.1	10:37 12.7	16:54 3.5	23:16 13.4
	W	10	5:46 3.7	12:02 12.3	18:14 4.0	. . . . . .
	Th	11	0:32 13.6	7:02 3.7	13:17 12.5	19:33 3.8
S	F	12	1:38 13.9	8:17 3.1	14:18 13.0	20:43 3.2
	S	13	2:32 14.4	9:20 3.2	15:04 13.2	21:42 3.2
	S	14	3:17 14.7	10:06 1.4	15:46 13.9	22:27 1.7
	M	15	3:53 15.1	10:47 0.9	16:19 14.4	23:05 1.3
A ●	Tu	16	4:27 15.4	11:21 0.5	16:47 14.9	23:38 1.2
	W	17	4:56 15.6	11:52 0.6	17:14 15.5	. . . . . .
	Th	18	0:07 1.3	5:24 16.0	12:20 0.9	17:40 16.0
E	F	19	0:35 1.5	5:50 16.2	12:45 1.2	18:05 16.6
	S	20	1:00 1.6	6:16 16.6	13:07 1.7	18:34 17.1
	S	21	1:22 2.0	6:50 16.8	13:34 2.0	19:11 17.2
	M	22	1:52 2.0	7:28 16.4	14:00 2.3	19:54 16.7
	Tu	23	2:32 2.2	8:12 15.6	14:37 2.7	20:44 15.7
☽	W	24	3:22 2.7	9:08 14.2	15:27 3.6	21:48 14.3
	Th	25	4:28 3.5	10:22 12.7	16:36 4.5	23:15 13.3
N	F	26	5:49 4.0	12:07 12.2	18:18 5.0	. . . . . .
	S	27	0:42 13.7	7:18 3.7	13:28 12.9	19:53 4.2
	S	28	1:53 14.5	8:37 2.7	14:22 14.0	21:07 2.8
	M	29	2:47 15.5	9:37 1.3	15:16 16.3	22:02 1.4

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	3:37 16.4	10:28 0.1	15:58 16.1	22:50 0.3
○	W	2	4:22 17.1	11:12 —0.7	16:42 17.0	23:32 —0.5
E	Th	3	5:02 17.5	11:53 —1.0	17:22 17.5	. . . . . .
	F	4	0:14 —0.7	5:41 17.6	12:32 —0.8	18:05 17.6
	S	5	0:54 —0.5	6:22 17.2	13:10 —0.3	18:40 17.4
	S	6	1:36 0.1	7:00 16.5	13:53 0.6	19:24 16.7
	M	7	2:17 1.0	7:42 15.4	14:36 1.7	20:10 15.5
	Tu	8	3:05 1.9	8:34 14.0	15:25 2.9	21:09 14.2
☾	W	9	4:00 3.0	9:46 12.6	16:24 4.0	22:25 13.0
S	Th	10	5:02 3.7	11:18 11.9	17:35 4.7	23:52 12.8
	F	11	6:21 4.1	12:44 12.0	18:54 4.7	. . . . . .
	S	12	1:07 13.1	7:38 3.8	13:48 12.5	20:14 4.0
	S	13	2:06 13.6	8:44 3.0	14:41 13.2	21:16 3.0
A	M	14	2:50 14.0	9:39 1.9	15:18 13.9	22:04 2.0
	Tu	15	3:31 14.6	10:20 1.2	15:57 14.6	22:42 1.3
	W	16	4:07 15.2	10:56 0.8	16:24 15.4	23:14 1.0
● E	Th	17	4:37 15.5	11:28 0.6	16:50 16.0	23:45 0.9
	F	18	5:03 15.9	11:56 0.8	17:18 16.6	. . . . . .
	S	19	0:13 1.0	5:30 16.2	12:22 1.2	17:46 17.0
	S	20	0:41 1.1	5:57 16.5	12:44 1.9	18:14 17.4
	M	21	1:17 1.3	6:28 16.8	13:08 2.2	18:48 17.5
	Tu	22	1:35 1.6	7:05 16.5	13:34 2.5	19:27 17.1
	W	23	2:16 1.9	7:46 15.7	14:12 3.0	20:15 16.1
N	Th	24	3:02 2.4	8:43 14.5	15:04 3.7	21:15 14.6
☽	F	25	4:05 3.2	10:00 12.9	16:17 4.7	22:41 13.2
	S	26	5:22 3.8	11:41 12.3	17:56 5.0	. . . . . .
	S	27	0:17 13.3	6:50 3.6	13:07 13.1	19:32 4.1
	M	28	1:34 14.2	8:10 2.7	14:06 14.2	20:44 2.8
	Tu	29	2:30 15.1	9:12 1.5	14:57 15.4	21:40 1.3
P	W	30	3:18 16.0	10:03 0.3	15:40 16.3	22:30 0.2
E ○	Th	31	4:03 16.7	10:50 —0.4	16:25 17.3	23:12 —0.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Rangoon Mean Local Civil, for the meridian 96° 12′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:37 17.1	11:26 —0.6	16:54 17.8	23:50 —0.7	
	S	2	5:16 17.2	12:06 —0.4	17:34 17.9	. . . . . .	
	S	3	0:29 —0.5	5:54 16.9	12:44 0.1	18:16 17.6	
	M	4	1:09 0.0	6:34 16.3	13:23 1.0	18:55 16.9	
	Tu	5	1:50 0.7	7:15 15.5	14:03 1.9	19:37 15.9	
S	W	6	2:34 1.7	8:02 14.3	14:51 3.2	20:25 14.5	
	Th	7	3:24 2.7	8:59 13.1	15:42 4.1	21:28 13.2	
☾	F	8	4:14 3.5	10:20 12.1	16:45 4.8	22:57 12.4	
	S	9	5:23 4.1	11:45 11.8	18:00 5.1	. . . . . .	
	S	10	0:14 12.4	6:34 4.2	13:00 12.3	19:21 4.8	
A	M	11	1:19 12.9	7:50 3.6	13:52 13.0	20:32 3.9	
	Tu	12	2:08 13.4	8:52 2.8	14:40 14.0	21:24 2.8	
	W	13	2:50 14.0	9:38 2.0	15:12 14.7	22:06 2.0	
E	Th	14	3:28 14.7	10:20 1.5	15:46 15.7	22:41 1.3	
	F	15	3:57 15.2	10:55 1.2	16:20 16.4	23:15 1.0	
●	S	16	4:35 15.3	11:24 1.2	16:52 16.8	23:45 0.7	
	S	17	5:07 16.2	11:55 1.4	17:22 17.2	. . . . . .	
	M	18	0:18 0.7	5:37 16.4	12:26 1.9	17:57 17.3	
	Tu	19	0:52 0.9	6:14 16.3	12:58 2.3	18:30 17.2	
	W	20	1:28 1.1	6:53 16.1	13:32 2.8	19:12 16.7	
N	Th	21	2:10 1.5	7:39 15.4	14:15 3.3	20:02 15.7	
	F	22	3:00 2.1	8:37 14.3	15:12 3.9	21:04 14.4	
☽	S	23	4:00 2.7	9:52 13.3	16:22 4.2	22:23 13.4	
	S	24	5:06 3.2	11:22 12.9	17:40 4.3	23:54 13.4	
	M	25	6:20 3.2	12:38 13.6	19:00 3.8	. . . . . .	
	Tu	26	1:05 14.0	7:32 2.6	13:40 14.6	20:12 2.8	
P E	W	27	2:02 14.8	8:38 1.8	14:30 15.7	21:15 1.6	
	Th	28	2:51 15.5	9:34 1.0	15:10 16.3	22:04 0.6	
	F	29	3:35 15.9	10:20 0.4	15:57 17.1	22:49 0.0	
○	S	30	4:12 16.1	11:04 0.2	16:35 17.4	23:30 —0.2	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	4:55 16.2	11:44 0.3	17:15 17.4	. . . . . .	
	M	2	0:10 —0.1	5:28 16.0	12:22 0.9	17:50 17.1	
	Tu	3	0:47 0.3	6:10 15.7	13:02 1.6	18:27 16.5	
S	W	4	1:29 1.0	6:50 16.2	13:42 2.4	19:07 15.7	
	Th	5	2:10 1.7	7:32 14.4	14:22 3.2	19:52 14.7	
	F	6	2:51 2.3	8:23 13.5	15:14 4.0	20:46 13.6	
☾	S	7	3:45 3.2	9:30 12.7	16:06 4.6	21:56 12.6	
A	S	8	4:42 3.7	10:50 12.3	17:12 4.9	23:18 12.3	
	M	9	5:45 4.0	12:04 12.6	18:22 4.8	. . . . . .	
	Tu	10	0:27 12.6	6:51 3.8	13:06 13.3	19:32 4.2	
E	W	11	1:27 13.2	7:55 3.4	13:52 14.2	20:33 3.4	
	Th	12	2:12 13.7	8:51 2.8	14:36 15.0	21:23 2.4	
	F	13	2:51 14.3	9:38 2.2	15:14 15.7	22:06 1.7	
	S	14	3:30 14.8	10:20 1.9	15:49 16.4	22:46 1.2	
●	S	15	4:02 15.2	10:57 1.8	16:23 16.9	23:22 0.9	
	M	16	4:44 15.7	11:34 1.9	17:00 17.1	. . . . . .	
	Tu	17	0:00 0.7	5:20 15.9	12:10 2.2	17:38 17.1	
N	W	18	0:38 0.7	6:00 15.9	12:48 2.4	18:18 16.9	
	Th	19	1:20 0.9	6:45 15.7	13:32 2.7	19:00 16.4	
	F	20	2:06 1.2	7:31 15.2	14:18 3.1	19:51 15.6	
	S	21	2:54 1.7	8:30 14.5	15:12 3.4	20:52 14.5	
☽	S	22	3:49 2.2	9:41 13.9	16:12 3.6	22:09 13.7	
P	M	23	4:47 2.5	11:00 13.7	17:20 3.6	23:31 13.6	
E	Tu	24	5:54 2.7	12:13 14.2	18:34 3.3	. . . . . .	
	W	25	0:40 14.0	7:02 2.5	13:15 15.0	19:43 2.7	
	Th	26	1:38 14.4	8:07 2.1	14:07 15.7	20:48 1.9	
	F	27	2:30 14.7	9:07 1.6	14:52 16.2	21:44 1.2	
	S	28	3:16 15.0	10:00 1.2	15:34 16.5	22:32 0.7	
○	S	29	4:00 15.1	10:45 1.1	16:15 16.7	23:13 0.5	
	M	30	4:35 15.2	11:27 1.2	16:58 16.7	23:53 0.5	
S	Tu	31	5:12 15.1	12:06 1.6	17:29 16.4	. . . . . .	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	0:30 0.8	5:48 15.1	12:44 2.1	18:04 16.0	
	Th	2	1:07 1.2	6:25 14.8	13:22 2.7	18:42 15.5	
	F	3	1:47 1.7	7:08 14.6	14:02 3.2	19:21 15.0	
	S	4	2:27 2.1	7:52 14.2	14:44 3.7	20:08 14.3	
A	S	5	3:10 2.7	8:47 13.7	15:32 4.0	21:06 13.3	
☾	M	6	4:00 3.2	9:52 13.3	16:25 4.3	22:14 12.7	
E	Tu	7	4:53 3.5	11:03 13.1	17:24 4.3	23:30 12.7	
	W	8	5:50 3.7	12:08 13.5	18:30 4.1	. . . . . .	
	Th	9	0:35 12.9	6:53 3.7	13:06 14.2	19:34 3.6	
	F	10	1:30 13.4	7:55 3.5	13:55 14.9	20:33 3.0	
	S	11	2:16 13.9	8:53 3.1	14:39 15.6	21:28 2.3	
	S	12	2:59 14.4	9:44 2.7	15:22 16.1	22:17 1.6	
	M	13	3:42 14.9	10:32 2.4	16:00 16.6	23:00 1.1	
● N	Tu	14	4:18 15.3	11:15 2.1	16:38 17.0	23:42 0.7	
	W	15	5:04 15.6	11:57 2.1	17:23 16.9	. . . . . .	
	Th	16	0:25 0.5	5:47 15.7	12:40 2.1	18:06 16.8	
P	F	17	1:08 0.5	6:33 15.7	13:23 2.1	18:52 16.3	
	S	18	1:52 0.7	7:22 15.4	14:07 2.2	19:42 15.7	
	S	19	2:40 1.1	8:20 15.0	15:05 2.4	20:40 14.9	
☽	M	20	3:30 1.4	9:24 14.6	15:57 2.7	21:50 14.1	
E	Tu	21	4:26 2.0	10:36 14.4	16:59 3.0	23:06 13.7	
	W	22	5:26 2.4	11:45 14.5	18:05 3.0	. . . . . .	
	Th	23	0:16 13.7	6:30 2.6	12:48 14.9	19:16 2.8	
	F	24	1:20 13.9	7:37 2.6	13:44 15.3	20:24 2.3	
	S	25	2:14 14.1	8:43 2.3	14:32 15.7	21:24 1.7	
	S	26	3:00 14.2	9:40 2.0	15:18 15.9	22:15 1.3	
S	M	27	3:43 14.2	10:30 1.8	15:58 16.0	23:00 1.0	
○	Tu	28	4:22 14.4	11:11 1.7	16:35 16.0	23:37 1.0	
	W	29	4:57 14.5	11:52 2.0	17:10 15.8	. . . . . .	
	Th	30	0:14 1.1	5:30 14.7	12:27 2.3	17:45 15.7	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Rangoon Mean Local Civil, for the meridian 96° 12′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.) all, greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							AUGUST.							SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:48 1.3	6:06 14.8	13:00 2.6	18:18 15.5	E	M	1	1:30 1.8	6:52 15.8	13:45 2.5	19:05 15.7		Th	1	2:54 2.6	7:38 16.2	14:24 2.4	19:57 15.2
	S	2	1:23 1.6	6:42 14.9	13:37 2.9	18:57 15.4		Tu	2	2:00 2.2	7:30 15.8	14:20 2.7	19:46 15.3		F	2	2:31 3.2	8:27 15.5	15:13 2.7	20:54 14.2
A	S	3	2:00 1.9	7:22 15.0	14:15 3.1	19:35 15.0		W	3	2:38 2.5	8:17 15.5	15:00 2.8	20:34 14.7	☾	S	3	3:20 3.8	9:27 14.3	16:08 3.2	22:03 13.1
	M	4	2:37 2.3	8:08 14.7	14:56 3.4	20:24 14.4	☾	Th	4	3:13 3.0	9:09 14.8	15:47 3.0	21:30 13.7		S	4	4:23 4.3	10:44 13.5	17:19 3.6	23:32 12.6
E	Tu	5	3:18 2.7	9:00 14.4	15:41 3.5	21:20 13.7		F	5	4:02 3.6	10:13 14.1	16:44 3.4	22:45 12.9	N	M	5	5:42 4.7	12:10 13.7	18:35 3.5	. . . . . .
☾	W	6	4:02 3.1	10:02 13.9	16:34 3.6	22:26 13.0		S	6	5:02 4.0	11:26 13.8	17:58 3.6	. . . . . .		Tu	6	0:47 13.1	7:08 4.2	13:17 14.5	19:51 2.9
	Th	7	4:53 3.6	11:09 13.8	17:34 3.8	23:41 12.8		S	7	0:05 12.7	6:13 4.4	12:40 14.2	19:05 3.4		W	7	1:49 14.0	8:21 3.4	14:13 15.3	20:56 1.9
	F	8	5:52 3.9	12:17 14.1	18:40 3.7	. . . . . .	N	M	8	1:12 13.2	7:32 4.1	13:40 14.8	20:19 2.9		Th	8	2:37 14.9	9:24 2.2	15:02 16.1	21:51 0.9
	S	9	0:42 13.1	7:00 4.0	13:16 14.6	19:47 3.3		Tu	9	2:05 13.9	8:43 3.3	14:32 15.6	21:20 2.0		F	9	3:28 16.1	10:17 1.3	15:50 16.9	22:39 0.0
	S	10	1:42 13.5	8:08 3.7	14:08 15.2	20:51 2.7		W	10	3:00 14.7	9:44 2.4	15:22 16.2	22:15 1.0	P ●	S	10	4:10 17.0	11:02 0.2	16:32 17.3	23:22 —0.4
	M	11	2:25 14.1	9:12 3.2	14:56 15.8	21:46 1.9	●	Th	11	3:47 15.6	10:37 1.6	16:07 16.8	23:02 0.3	E	S	11	4:53 17.6	11:46 —0.2	17:14 17.5	. . . . . .
N	Tu	12	3:17 14.6	10:06 2.6	15:42 16.4	22:37 1.1	P	F	12	4:30 16.3	11:24 0.9	16:52 17.2	23:46 —0.2		M	12	0:02 —0.4	5:35 17.8	12:27 —0.2	17:55 17.2
●	W	13	4:04 15.2	10:55 2.0	16:25 16.8	23:24 0.5		S	13	5:14 16.8	12:17 0.5	17:34 17.2	. . . . . .		Tu	13	0:46 —0.1	6:18 17.6	13:10 0.1	18:37 16.6
	Th	14	4:47 15.7	11:42 1.6	17:08 17.0	. . . . . .	E	S	14	0:30 —0.3	5:58 17.1	12:52 0.4	18:19 17.1		W	14	1:30 0.6	7:02 16.9	13:56 0.8	19:24 15.5
P	F	15	0:07 0.3	5:33 16.1	12:26 1.4	17:52 16.9		M	15	1:13 —0.1	6:44 17.0	13:36 0.6	19:05 16.5		Th	15	2:14 1.6	7:48 15.9	14:42 1.6	20:16 14.3
	S	16	0:52 0.1	6:20 16.2	13:12 1.3	18:37 16.7		Tu	16	1:57 0.4	7:32 16.5	14:18 1.0	19:53 15.6	☽	F	16	3:02 2.6	8:46 14.6	15:36 2.5	21:24 13.0
	S	17	1:35 0.2	7:08 16.1	13:56 1.3	19:27 16.2		W	17	2:40 1.1	8:24 15.7	15:12 1.7	20:51 14.4	S	S	17	4:01 3.6	9:59 13.4	16:33 3.3	22:46 12.3
E	M	18	2:21 0.6	8:00 15.8	14:45 1.6	20:19 15.4	☽	Th	18	3:32 2.1	9:26 14.7	16:06 2.4	22:02 13.3		S	18	5:05 4.2	11:20 13.1	17:48 3.7	. . . . . .
	Tu	19	3:05 1.1	8:57 15.1	15:38 2.1	21:23 14.4		F	19	4:29 3.0	10:40 13.9	17:08 3.1	23:22 12.7		M	19	0:12 12.2	6:20 4.5	12:37 13.1	19:03 3.5
☽	W	20	4:00 1.8	10:02 14.7	16:22 2.4	22:36 13.5		S	20	5:36 3.6	11:55 13.8	18:20 3.4	. . . . . .		Tu	20	1:22 12.8	7:39 3.9	13:40 13.8	20:14 2.8
	Th	21	5:00 2.5	11:14 14.4	17:36 3.0	23:50 13.2	S	S	21	0:37 12.7	6:50 3.8	13:02 14.0	19:32 3.2		W	21	2:17 13.5	8:46 3.0	14:30 14.4	21:10 2.0
	F	22	6:05 2.6	12:22 14.5	18:50 3.1	. . . . . .		M	22	1:44 13.0	8:05 3.4	14:00 14.4	20:43 3.0		Th	22	2:59 14.2	9:37 2.1	15:10 14.7	21:56 1.4
	S	23	1:00 13.3	7:12 3.2	13:24 14.7	20:00 2.7		Tu	23	2:37 13.4	9:10 2.7	14:48 14.7	21:39 1.8	A	F	23	3:31 14.7	10:18 1.5	15:44 15.1	22:32 1.0
	S	24	1:59 13.5	8:23 2.9	14:17 15.0	21:06 2.2		W	24	3:17 13.8	10:00 2.1	15:30 15.0	22:24 1.3		S	24	4:02 15.4	10:52 1.2	16:12 15.5	23:05 1.0
S	M	25	2:49 13.7	9:26 2.4	15:05 15.2	22:00 1.6		Th	25	3:55 14.2	10:42 1.7	16:03 15.2	23:00 1.0	○ E	S	25	4:28 15.9	11:22 1.2	16:40 15.7	23:34 1.2
	Tu	26	3:33 13.8	10:17 2.1	15:43 15.4	22:44 1.3	○	F	26	4:20 14.6	11:16 1.5	16:32 15.4	23:30 1.0		M	26	4:57 16.4	11:51 1.2	17:10 16.1	. . . . . .
○	W	27	4:10 14.1	11:00 1.9	16:20 15.5	23:22 1.1	A	S	27	4:53 15.3	11:48 1.5	17:05 15.7	. . . . . .		Tu	27	0:02 1.6	5:25 16.7	12:20 1.4	17:37 16.2
	Th	28	4:41 14.4	11:36 1.9	16:55 15.6	23:55 1.1	E	S	28	0:02 1.2	5:17 15.7	12:17 1.3	17:35 15.9		W	28	0:27 2.1	5:57 16.9	12:48 1.6	18:11 16.2
	F	29	5:12 14.7	12:10 2.1	17:24 15.6	. . . . . .		M	29	0:30 1.5	5:51 16.2	12:46 1.9	18:05 16.1		Th	29	0:52 2.7	6:27 17.0	13:22 1.9	18:45 16.2
	S	30	0:27 1.3	5:45 15.2	12:40 2.2	17:58 15.7		Tu	30	0:57 1.9	6:24 16.5	13:14 2.0	18:37 16.1		F	30	1:22 3.1	7:07 16.6	13:59 2.2	19:30 15.5
A	S	31	0:56 1.5	6:17 15.5	13:12 2.4	18:31 15.7		W	31	1:24 2.3	6:57 16.6	13:48 2.1	19:14 15.9							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Rangoon Mean Local Civil, for the meridian 96° 12′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator: A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	2:00 3.5	7:52 15.7	14:47 2.7	20:22 14.4	
N ☾	S	2	2:52 4.1	8:51 14.5	15:47 3.1	21:36 13.2	
	M	3	4:02 4.5	10:10 13.4	16:55 3.4	23:06 12.6	
	Tu	4	5:26 4.7	11:42 13.3	18:11 3.4	. . . . . .	
	W	5	0:28 13.2	6:48 4.2	12:56 14.1	19:25 2.8	
	Th	6	1:32 14.3	8:00 3.1	13:55 15.0	20:31 1.8	
	F	7	2:22 15.5	9:04 1.8	14:45 16.0	21:26 0.8	
P E	S	8	3:08 16.7	9:55 0.7	15:30 16.7	22:14 0.0	
●	S	9	3:52 17.5	10:40 —0.1	16:11 17.2	22:57 —0.3	
	M	10	4:32 18.0	11:23 —0.4	16:51 17.2	23:38 —0.3	
	Tu	11	5:12 18.2	12:04 —0.4	17:30 17.0	. . . . . .	
	W	12	0:20 0.3	5:51 17.7	12:47 0.0	18:10 16.3	
	Th	13	1:02 1.1	6:32 17.0	13:30 0.7	18:54 15.4	
	F	14	1:46 2.1	7:15 16.0	14:15 1.6	19:41 14.3	
S	S	15	2:35 3.1	8:06 14.7	15:06 2.5	20:40 13.0	
☽	S	16	3:30 4.0	9:11 13.3	16:02 3.3	22:03 12.1	
	M	17	4:33 4.7	10:37 12.3	17:06 3.8	23:32 12.1	
	Tu	18	5:46 4.8	11:59 12.7	18:22 3.8	. . . . . .	
	W	19	0:46 12.6	7:03 4.4	13:06 13.2	19:31 3.3	
A	Th	20	1:42 13.5	8:10 3.5	13:57 13.8	20:32 2.5	
	F	21	2:26 14.4	9:03 2.5	14:40 14.4	21:18 1.7	
E	S	22	3:00 15.2	9:45 1.7	15:14 14.9	21:57 1.4	
	S	23	3:32 15.7	10:22 1.2	15:45 15.2	22:35 1.2	
○	M	24	4:02 16.4	10:55 1.0	16:12 15.5	23:06 1.4	
	Tu	25	4:32 16.7	11:26 1.0	16:45 15.9	23:35 1.8	
	W	26	5:02 17.0	11:58 1.0	17:16 16.1	. . . . . .	
	Th	27	0:05 2.3	5:33 17.0	12:30 1.2	17:48 16.1	
	F	28	0:33 2.9	6:07 16.9	13:06 1.9	18:28 15.9	
N	S	29	1:06 3.4	6:44 16.7	13:48 2.0	19:11 15.4	
	S	30	1:48 3.7	7:31 15.7	14:33 2.4	20:06 14.5	
	M	31	2:44 4.2	8:28 14.5	15:32 3.0	21:15 13.4	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
☾	Tu	1	3:53 4.2	9:45 13.3	16:37 3.2	22:44 13.0	
	W	2	5:08 4.4	11:17 13.2	17:47 3.2	. . . . . .	
	Th	3	0:06 13.5	6:24 3.9	12:35 13.8	19:00 2.7	
	F	4	1:12 14.6	7:38 2.9	13:36 14.7	20:02 1.9	
E P	S	5	2:05 15.7	8:40 1.7	14:27 15.5	21:00 1.0	
	S	6	2:48 16.8	9:34 0.7	15:10 16.1	21:48 0.4	
●	M	7	3:32 17.5	10:21 0.0	15:52 16.4	22:37 0.2	
	Tu	8	4:12 17.9	11:04 —0.3	16:30 16.5	23:20 0.3	
	W	9	4:50 17.9	11:46 —0.3	17:09 16.3	23:57 0.8	
	Th	10	5:27 17.5	12:26 0.2	17:46 15.9	. . . . . .	
S	F	11	0:40 1.4	6:07 16.8	13:08 0.8	18:28 15.3	
	S	12	1:22 2.4	6:47 15.9	13:50 1.5	19:12 14.4	
	S	13	2:08 3.2	7:30 15.9	14:37 2.3	20:03 13.5	
	M	14	2:57 4.0	8:25 13.6	15:30 3.1	21:10 12.6	
☽	Tu	15	3:48 4.5	9:39 12.5	16:27 3.6	22:35 12.2	
	W	16	4:52 4.8	11:03 12.2	17:30 3.8	23:52 12.5	
A	Th	17	6:10 4.7	12:17 12.6	18:37 3.7	. . . . . .	
E	F	18	0:53 13.3	7:17 4.1	13:17 13.2	19:39 3.2	
	S	19	1:44 14.2	8:17 3.2	14:00 13.7	20:33 2.8	
	S	20	2:22 15.0	9:07 2.4	14:42 14.3	21:21 2.1	
	M	21	3:00 15.8	9:50 1.7	15:15 14.8	22:02 1.9	
	Tu	22	3:36 16.3	10:28 1.2	15:54 15.2	22:39 1.9	
○	W	23	4:08 16.3	11:02 0.9	16:20 15.6	23:15 2.0	
	Th	24	4:42 17.0	11:38 0.9	16:59 15.9	23:50 2.2	
N	F	25	5:16 17.1	12:16 0.9	17:36 16.0	. . . . . .	
	S	26	0:22 2.6	5:53 16.9	12:53 1.2	18:16 15.8	
	S	27	1:02 3.0	6:31 16.6	13:36 1.5	19:00 15.5	
	M	28	1:48 3.3	7:18 15.9	14:24 1.9	19:53 14.8	
	Tu	29	2:41 3.6	8:13 14.8	15:15 2.4	21:00 14.0	
☾	W	30	3:42 3.8	9:24 13.7	16:17 2.7	22:18 13.6	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	4:48 3.8	10:50 13.3	17:22 2.9	23:38 13.8	
E	F	2	5:58 3.8	12:10 13.5	18:30 2.7	. . . . . .	
P	S	3	0:46 14.7	7:11 3.0	13:14 14.2	19:36 2.3	
	S	4	1:42 15.6	8:18 2.1	14:08 14.7	20:37 1.7	
	M	5	2:30 16.4	9:15 1.2	14:55 15.2	21:30 1.1	
	Tu	6	3:14 17.0	10:05 0.5	15:37 15.4	22:20 0.8	
●	W	7	3:55 17.2	10:50 0.2	16:16 15.6	23:02 0.9	
S	Th	8	4.34 17.2	11:32 0.1	16:50 15.5	23:44 1.2	
	F	9	5:08 17.1	12:10 0.4	17:30 15.5	. . . . . .	
	S	10	0:22 1.7	5:47 16.6	12:48 0.8	18:07 15.2	
	S	11	1:02 2.2	6:24 16.0	13:27 1.2	18:47 14.9	
	M	12	1:42 2.9	7:02 14.4	14:08 1.9	19:31 14.4	
	Tu	13	2:27 3.5	7:48 14.4	14:50 2.5	20:22 13.7	
	W	14	3:12 4.0	8:42 13.4	15:42 3.2	21:27 13.1	
☽ A	Th	15	4:07 4.4	9:50 12.5	16:35 3.7	22:43 12.7	
E	F	16	5:08 4.5	11:12 12.2	17:35 4.0	. . . . . .	
	S	17	0:58 12.0	6:12 4.4	12:20 12.5	18:40 4.0	
	S	18	0:53 13.7	7:20 4.2	13:20 13.0	19:44 3.7	
	M	19	1:44 14.5	8:21 3.2	14:04 13.5	20:40 3.2	
	Tu	20	2:28 15.2	9:14 2.4	14:50 14.2	21:31 2.7	
	W	21	3:10 15.9	10:00 1.6	15:17 14.7	22:16 2.3	
	Th	22	3:48 16.5	10:43 1.1	16:07 15.3	22:56 2.0	
○ N	F	23	4:25 16.9	11:22 0.6	16:46 15.7	23:37 1.9	
	S	24	5:02 17.1	12:02 0.5	17:24 16.1	. . . . . .	
	S	25	0:16 2.0	5:42 17.1	12:42 0.5	18:06 16.2	
	M	26	0:57 2.1	6:25 16.7	13:24 0.6	18:52 16.0	
P	Tu	27	1:42 2.3	7:08 16.3	14:10 1.1	19:40 15.6	
	W	28	2:30 2.5	7:59 15.4	14:58 1.6	20:39 15.0	
E ☾	Th	29	3:25 2.9	9:02 14.3	15:52 2.1	21:48 14.4	
	F	30	4:24 3.2	10:20 13.4	16:52 2.7	23:05 14.0	
	S	31	5:30 3.3	11:40 13.1	17:58 3.1	. . . . . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Rangoon Mean Local Civil, for the meridian 96° 12′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3.47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	8:00	11:53	20:19	. . .	○	M	1	0:52	9:27	13:18	21:43	P	Tu	1	0:36	9:10	13:04	21:28
			2.8	9.7	2.4	. . .				11.6	1.3	10.7	1.2				11.2	2.5	10.8	1.2
N	S	2	0:18	8:53	12:45	21:09	P	Tu	2	1:37	10:12	14:02	22:26	○	W	2	1:22	9:54	13:48	22:12
			11.3	2.0	10.4	1.7				12.0	0.7	11.1	0.8				11.8	0.6	11.4	0.5
○	S	3	1:06	9:41	13:30	21:55		W	3	2:20	10:52	14:43	23:17	E	Th	3	2:07	10:37	14:26	22:51
			11.9	1.5	10.9	1.4				12.4	0.4	11.4	0.7				12.1	0.2	11.8	0.5
P	M	4	1:50	10:25	14:14	22:37		Th	4	3:02	11:32	15:23	23:48		F	4	2:45	11:13	15:02	23:30
			12.3	1.2	11.1	1.5				12.4	0.4	11.4	0.7				12.2	0.6	11.8	0.4
	Tu	5	2:31	11:05	14:55	23:17	E	F	5	3:42	12:12	16:05	. . .		S	5	3:22	11:50	15:41	. . .
			12.5	0.9	11.1	1.6				12.2	0.6	11.4	. . .				12.0	0.4	11.7	. . .
	W	6	3:12	11:46	15:37	. . .		S	6	0:30	4:24	12:54	16:47		S	6	0:09	4:00	12:27	16:21
			12.3	0.7	11.0	. . .				0.7	11.5	1.0	10.9				1.2	11.5	1.0	11.4
	Th	7	0:00	3:55	12:30	16:22		S	7	1:13	5:07	13:37	17:30		M	7	0:50	4:38	13:06	17:00
			1.5	12.0	1.0	10.5				1.5	10.7	1.8	10.2				1.4	10.8	1.7	10.5
E	F	8	0:47	4:40	13:15	17:07	☾	M	8	2:00	5:52	14:22	18:22		Tu	8	1:28	5:20	13:50	17:45
			1.9	11.2	1.4	10.2				2.5	9.7	2.6	9.3				2.1	9.8	2.7	9.8
	S	9	1:37	5:31	14:05	18:00		Tu	9	2:53	6:47	15:20	19:18	☾	W	9	2:17	6:10	14:39	18:44
			2.2	10.4	1.8	9.5				3.2	8.6	3.2	8.6				3.2	7.7	3.6	8.7
☾	S	10	2:29	6:23	15:02	19:02		W	10	4:05	8:00	16:31	20:48	S	Th	10	3:22	7:15	15:44	20:00
			2.4	9.5	2.8	8.9				3.7	7.6	3.7	8.1				4.0	7.7	3.9	7.9
	M	11	3:32	7:29	16:06	20:32		Th	11	5:33	9:30	17:59	22:16		F	11	4:45	8:42	17:13	21:31
			3.8	8.4	3.7	7.9				3.7	7.5	3.7	8.5				4.1	7.1	4.1	8.0
	Tu	12	4:50	8:45	17:22	21:52	S	F	12	7:00	10:58	19:20	23:27		S	12	6:20	10:20	18:44	22:54
			3.9	8.0	3.4	8.1				3.4	7.9	3.3	8.3				3.8	7.5	3.7	8.8
	W	13	6:14	10:10	18:38	22:50		S	13	8:07	12:02	20:22	. . .		S	13	7:33	11:30	19:52	23:50
			3.4	8.1	3.1	9.2				2.7	8.6	2.4	. . .				3.1	8.2	3.0	9.4
	Th	14	7:30	11:25	19:47	23:50		S	14	0:22	8:59	12:51	21:09	A	M	14	8:25	12:12	20:42	. . .
			2.9	8.6	2.7	10.0				10.0	2.1	9.2	1.9				2.3	9.0	2.3	. . .
S	F	15	8:30	12:22	20:41	. . .		M	15	1:05	9:37	13:27	21:48		Tu	15	0:35	9:07	13:00	21:22
			2.2	9.0	2.1	. . .				10.4	1.4	9.6	1.7				10.1	1.6	9.7	1.9
	S	16	0:41	9:18	13:07	21:27	A	Tu	16	1:40	10:10	14:00	22:17		W	16	1:11	9:43	13:32	21:54
			10.4	1.7	9.4	1.6	●			10.7	1.0	9.8	1.6				10.6	1.1	10.2	1.4
●	S	17	1:20	9:58	13:43	22:04		W	17	2:10	10:40	14:25	22:42	●	Th	17	1:42	10:10	13:56	22:19
			10.7	1.1	9.5	1.6				11.0	1.1	10.3	1.6	E			11.0	0.9	10.7	1.4
	M	18	1:55	10:24	14:15	22:32		Th	18	2:34	11:02	14:47	23:06		F	18	2:07	10:35	14:22	22:45
			10.8	0.9	9.7	1.6				11.3	1.2	10.7	2.0				11.3	1.4	11.2	1.6
	Tu	19	2:25	10:55	14:40	22:58	E	F	19	2:56	11:25	15:12	23:32		S	19	2:30	10:58	14:48	23:11
			11.0	1.3	9.8	1.8				11.6	1.8	11.0	2.5				11.5	1.7	11.5	2.1
A	W	20	2:51	11:22	15:05	23:22		S	20	3:20	11:50	15:40	. . .		S	20	3:00	11:25	15:16	23:41
			11.3	1.6	10.2	2.4				11.7	2.2	11.0	. . .				11.7	1.9	11.6	2.4
	Th	21	3:15	11:47	15:30	23:50		S	21	0:00	3:50	12:20	16:10		M	21	3:27	11:55	15:47	. . .
			11.3	2.1	10.3	2.7				2.4	11.5	2.0	11.0				11.6	2.1	11.6	. . .
	F	22	3:41	12:22	16:00	. . .		M	22	0:35	4:25	12:55	16:45		Tu	22	0:14	4:02	12:30	16:24
			11.3	2.5	10.4	. . .				2.1	11.2	2.5	10.8				2.6	11.2	2.0	11.2
E	S	23	0:20	4:12	12:44	16:33		Tu	23	1:12	5:04	13:34	17:28		W	23	0:50	4:40	13:10	17:04
			2.9	11.2	2.4	10.4				2.7	10.4	2.7	10.1				2.5	10.3	3.0	10.3
	S	24	1:00	4:48	13:20	17:11	☽	W	24	1:56	5:47	14:17	18:21	N	Th	24	1:37	5:26	13:55	17:57
			2.7	10.7	2.2	10.1				3.1	9.5	2.8	9.2				3.2	9.5	3.0	9.7
	M	25	1:38	5:32	14:05	18:00		Th	25	2:55	6:46	15:20	19:20	☽	F	25	2:35	6:25	14:57	19:07
			3.0	10.0	2.7	9.3				3.6	8.5	3.7	8.5				3.6	8.5	3.6	8.7
☽	Tu	26	2:27	6:20	14:54	18:59	N	F	26	4:12	8:06	16:42	21:00		S	26	3:54	7:48	16:21	20:39
			3.3	9.3	2.9	8.9				4.3	7.7	4.2	8.4				4.2	7.7	4.2	8.5
	W	27	3:28	7:22	15:59	20:12		S	27	5:58	9:46	18:17	22:30		S	27	5:27	9:25	17:56	22:10
			3.9	8.4	3.5	8.5				4.4	7.9	3.9	9.2				4.1	7.9	3.7	8.9
	Th	28	4:49	8:43	17:19	21:35		S	28	7:14	11:10	19:37	23:40		M	28	6:52	10:49	19:16	23:20
			4.6	7.8	4.0	8.8				3.2	8.8	3.2	10.2				3.4	8.8	2.8	10.0
	F	29	6:16	10:12	18:43	22:55		M	29	8:19	12:13	20:38	. . .		Tu	29	7:57	11:51	20:18	. . .
			4.3	8.3	3.7	9.8				2.1	10.0	2.3	. . .				3.0	9.9	1.8	. . .
N	S	30	7:35	11:30	19:56	. . .								P	W	30	0:15	8:47	12:42	21:10
			3.2	9.3	2.7	. . .											11.0	1.4	11.0	0.7
	S	31	0:00	8:37	12:30	20:53								E ○	Th	31	1:04	9:34	13:25	21:52
			10.8	2.0	10.1	2.1											11.6	0.5	11.6	1.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Calcutta Mean Local Civil, for the meridian 88° 22′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A. P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	1:46 12.0	10:14 0.3	14:05 12.0	22:32 0.2
	S	2	2:22 11.8	10:48 0.3	14:40 12.0	23:10 0.4
	S	3	2:58 11.5	11:22 0.7	15:16 11.8	23:46 1.2
	M	4	3:34 11.1	11:57 1.2	15:52 11.5	. . . . . .
	Tu	5	0:20 1.5	4:10 10.5	12:34 2.2	16:29 10.8
S	W	6	1:00 2.3	4:50 9.6	13:16 2.6	17:10 10.0
☾	Th	7	1:46 2.8	5:35 8.8	14:04 3.5	18:02 9.0
	F	8	2:42 3.6	6:34 7.8	15:04 4.0	19:10 8.1
	S	9	4:00 4.1	7:55 7.0	16:25 4.4	20:37 7.7
	S	10	5:27 4.1	9:28 7.3	17:57 4.2	22:00 8.1
A	M	11	6:44 3.4	10:42 8.2	19:08 3.4	23:05 9.0
	Tu	12	7:38 2.6	11:37 9.1	20:02 2.7	23:54 9.8
	W	13	8:23 2.0	12:17 10.0	20:46 2.3	. . . . . .
E	Th	14	0:36 10.5	9:04 1.7	12:56 10.7	21:20 1.7
	F	15	1:07 11.0	9:34 1.7	13:27 11.2	21:50 1.7
●	S	16	1:37 11.2	10:02 1.5	13:55 11.5	22:21 1.8
	S	17	2:07 11.3	10:30 1.8	14:23 11.8	22:51 2.0
	M	18	2:36 11.5	11:00 1.9	14:52 12.0	23:22 2.3
	Tu	19	3:08 11.4	11:32 2.5	15:25 11.8	23:56 2.5
	W	20	3:45 10.9	12:10 2.4	16:03 11.4	. . . . . .
N	Th	21	0:35 2.7	4:25 10.2	12:53 2.8	16:45 10.5
	F	22	1:25 2.8	5:15 9.6	13:45 3.2	17:40 9.7
☽	S	23	2:27 3.3	6:12 8.6	14:47 3.5	18:50 8.9
	S	24	3:44 3.6	7:40 7.8	16:11 4.2	20:22 8.5
	M	25	5:10 3.5	9:10 8.1	17:42 3.6	21:47 8.9
	Tu	26	6:29 3.0	10:27 9.0	18:55 2.8	22:56 9.8
P E	W	27	7:30 2.2	11:27 10.1	19:57 1.9	23:50 10.5
	Th	28	8:21 1.5	12:17 11.1	20:47 1.2	. . . . . .
	F	29	0:41 11.1	9:10 1.0	13:04 11.5	21:34 0.4
○	S	30	1:23 11.2	9:49 0.6	13:42 11.9	22:13 0.5

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	2:00 11.1	10:24 1.0	14:18 11.8	22:48 1.0
	M	2	2:36 10.8	10:57 1.3	14:52 11.8	23:22 1.5
	Tu	3	3:10 11.6	11:30 1.9	15:25 11.3	23:55 1.8
S	W	4	3:45 11.2	12:05 2.4	16:00 10.8	. . . . . .
	Th	5	0:34 2.3	4:22 9.5	12:44 2.8	16:38 10.2
	F	6	1:17 2.8	5:06 8.8	13:30 3.3	17:26 8.3
☾	S	7	2:06 3.3	5:57 8.1	14:27 3.8	18:24 8.6
A	S	8	3:10 3.8	7:05 7.4	15:35 4.2	19:35 7.9
	M	9	4:24 3.9	8:28 7.3	16:59 4.4	20:54 7.9
	Tu	10	5:40 3.7	9:42 8.0	18:14 4.0	22:07 8.5
E	W	11	6:40 3.1	10:42 9.0	19:12 3.2	23:05 8.2
	Th	12	7:32 2.5	11:30 9.9	20:00 2.6	23:50 10.0
	F	13	8:18 2.2	12:12 10.7	20:42 2.1	. . . . . .
	S	14	0:30 10.6	8:56 1.8	12:51 11.4	21:21 1.9
●	S	15	1:06 11.0	9:31 1.8	13:26 11.8	21:57 1.9
	M	16	1:42 11.1	10:05 1.8	14:00 12.1	22:30 1.9
	Tu	17	2:17 11.1	10:39 2.1	14:35 12.2	23:05 2.1
N	W	18	2:54 11.1	11:15 2.1	15:10 12.0	23:44 2.0
	Th	19	3:32 10.7	11:56 2.2	16:10 11.5	. . . . . .
	F	20	0:28 2.1	4:18 10.1	12:41 2.6	16:39 10.8
	S	21	1:18 2.4	5:10 9.4	13:38 3.0	17:35 10.0
☽	S	22	2:19 3.0	6:12 8.6	14:44 3.6	18:44 9.1
P	M	23	3:29 3.0	7:29 8.1	15:59 3.6	20:02 8.7
E	Tu	24	4:46 3.3	8:49 8.4	17:19 3.5	21:20 8.7
	W	25	5:59 3.2	10:00 9.1	18:33 3.0	22:29 9.3
	Th	26	7:02 2.6	11:02 10.0	19:35 2.2	23:30 9.9
	F	27	7:58 1.8	11:55 10.7	20:26 1.6	. . . . . .
	S	28	0:21 10.3	8:47 1.6	12:42 11.3	21:15 1.2
○	S	29	1:05 10.6	9:28 1.2	13:22 11.6	21:56 1.2
	M	30	1:42 10.5	10:07 1.5	14:00 11.6	22:32 0.9
S	Tu	31	2:18 10.3	10:38 1.7	14:34 11.4	23:05 1.3

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	2:53 10.1	11:10 2.1	15:05 11.2	23:37 1.8
	Th	2	3:24 9.9	11:42 2.5	15:55 10.9	. . . . . .
	F	3	0:10 2.3	4:00 9.5	12:17 3.0	16:12 10.5
	S	4	0:48 2.7	4:37 9.1	13:00 3.3	16:56 10.0
A	S	5	1:32 3.2	5:22 8.7	13:50 3.5	17:43 9.3
☾	M	6	2:23 3.4	6:18 8.2	14:47 4.0	18:42 8.6
E	Tu	7	3:23 3.5	7:26 7.9	15:54 4.1	19:50 8.2
	W	8	4:30 3.7	8:37 8.0	17:16 4.5	21:00 8.1
	Th	9	5:36 3.7	9:43 8.4	18:15 4.0	22:10 8.7
	F	10	6:38 3.4	10:42 9.6	19:14 3.5	23:06 9.2
	S	11	7:32 3.0	11:32 10.3	20:05 2.7	23:54 9.9
	S	12	8:20 2.5	12:17 11.3	20:52 2.2	. . . . . .
	M	13	0:40 10.5	9:05 1.9	13:00 11.9	21:33 1.8
● N	Tu	14	1:22 10.9	9:44 1.8	13:40 12.2	22:13 1.8
	W	15	2:04 11.0	10:24 2.1	14:30 12.3	22:54 1.6
	Th	16	2:42 11.0	11:04 1.9	15:00 12.1	23:35 1.6
P	F	17	3:25 10.7	11:46 1.9	15:43 11.7	. . . . . .
	S	18	0:20 1.8	4:12 10.3	12:34 2.2	16:30 11.1
	S	19	1:10 1.9	4:59 9.7	13:27 2.7	17:24 10.3
☽	M	20	2:04 2.5	5:57 9.2	14:29 2.9	18:24 9.4
E	Tu	21	3:06 2.6	7:05 8.7	15:35 3.3	19:32 8.8
	W	22	4:15 3.1	8:18 8.6	16:50 3.4	20:47 8.5
	Th	23	5:27 3.2	9:32 9.0	18:07 3.3	22:02 8.7
	F	24	6:34 2.4	10:40 9.6	19:16 2.5	23:11 8.2
	S	25	7:37 2.5	11:38 10.4	20:14 1.9	. . . . . .
	S	26	0:06 9.7	8:30 2.0	12:27 10.8	21:04 1.5
S	M	27	0:52 10.0	9:14 1.6	13:10 11.2	21:45 1.3
○	Tu	28	1:32 10.0	9:54 1.5	13:47 11.2	22:22 1.3
	W	29	2:08 10.0	10:26 1.7	14:20 11.2	22:54 1.4
	Th	30	2:40 9.8	10:57 2.1	14:50 11.1	23:22 1.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Calcutta Mean Local Civil, for the meridian 88° 22′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance. 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:08	11:25	15:22	23:50		E	M	1	3:46	12:06	16:08	. . .			Th	1	0:30	4:20	12:46	16:37	
			9.8	2.5	11.0	2.3					10.4	2.7	11.1	. . .					2.6	10.8	3.0	10.2	
	S	2	3:38	11:55	15:55	. . .			Tu	2	0:26	4:17	12:40	16:30			F	2	1:07	5:02	13:28	17:18	
			9.9	2.9	10.8	. . .					2.5	10.2	3.2	10.3					2.8	10.2	3.4	9.5	
A	S	3	0:22	4:10	12:32	16:24			W	3	1:00	4:52	13:17	17:11		☾	S	3	1:48	5:50	14:22	18:18	
			2.4	9.7	3.0	10.4					2.7	9.7	3.4	10.0					3.1	9.3	3.7	8.6	
	M	4	0:58	4:47	13:12	17:05		☾	Th	4	1:42	5:37	14:03	17:57			S	4	2:46	6:58	15:39	19:32	
			2.8	9.5	3.5	9.8					3.0	9.5	3.5	9.2					3.6	8.7	4.4	7.6	
E	Tu	5	1:38	5:32	14:00	17:52			F	5	2:32	6:32	15:03	18:56		N	M	5	4:10	8:28	17:16	21:12	
			3.2	9.1	4.0	9.3					3.3	8.8	3.9	8.3					4.3	8.4	4.3	7.6	
☾	W	6	2:27	6:26	14:52	18:49			S	6	3:32	7:44	16:22	20:15			Tu	6	5:45	10:02	18:46	22:42	
			3.3	8.7	3.8	8.7					3.5	8.4	4.6	7.9					4.1	8.9	3.5	8.8	
	Th	7	3:25	7:30	16:00	19:55			S	7	4:51	9:07	17:50	21:46			W	7	7:10	11:15	19:52	23:47	
			3.5	8.4	4.3	8.2					4.2	8.5	4.4	8.1					3.1	10.2	2.6	9.8	
	F	8	4:31	8:42	17:15	21:10		N	M	8	6:17	10:28	19:07	23:02			Th	8	8:13	12:10	20:44	. . .	
			3.7	8.6	4.4	8.2					3.8	9.4	3.5	8.9					2.2	11.1	1.5	. . .	
	S	9	5:44	9:53	18:30	22:24			Tu	9	7:30	11:32	20:10	. . .			F	9	0:38	9:04	12:57	21:28	
			3.8	9.2	4.1	8.8					3.0	10.5	2.4	. . .					10.9	1.4	12.0	0.9	
	S	10	6:52	10:57	19:33	23:25			W	10	0:04	8:27	12:27	21:02		P	S	10	1:20	9:47	13:40	22:12	
			3.5	10.0	3.2	9.4					9.8	2.5	11.6	1.7		●			11.6	0.8	12.5	0.2	
	M	11	7:51	11:52	20:29	. . .		●	Th	11	0:52	9:17	13:12	21:45		E	S	11	2:00	10:25	14:19	22:47	
			2.7	11.0	2.5	. . .					10.8	2.0	12.2	1.4					12.0	0.2	12.6	0.3	
N	Tu	12	0:18	8:42	12:42	21:16		P	F	12	1:37	10:00	13:55	22:26			M	12	2:37	11:04	14:56	23:24	
			10.1	2.3	11.6	2.0					11.2	0.4	12.5	1.1					12.3	0.2	12.3	0.5	
●	W	13	1:05	9:30	13:26	22:00			S	13	2:18	10:41	14:36	23:07			Tu	13	3:15	11:42	15:34	. . .	
			10.6	1.9	12.0	1.5					11.6	0.4	12.7	0.2					12.2	0.7	11.9	. . .	
	Th	14	1:50	10:12	14:08	22:41		E	S	14	2:57	11:21	15:16	23:47			W	14	0:02	3:54	12:22	16:12	
			11.0	1.5	12.4	1.2					11.7	1.1	12.3	0.2					0.9	11.6	1.3	11.1	
P	F	15	2:32	10:54	14:50	23:22			M	15	3:38	12:04	15:57	. . .			Th	15	0:40	4:34	13:02	16:54	
			11.2	1.4	12.4	0.9					11.6	0.8	11.8	. . .					1.6	11.0	1.9	10.1	
	S	16	3:14	11:36	15:32	. . .			Tu	16	0:27	4:20	12:47	16:42		☽	F	16	1:22	5:18	13:52	17:42	
			11.2	1.6	12.2	. . .					1.0	11.2	1.6	11.0					2.4	10.1	2.8	9.0	
	S	17	0:05	3:58	12:21	16:16			W	17	1:10	5:14	13:32	17:26		S	S	17	2:12	6:17	14:06	18:49	
			1.1	10.8	1.8	11.6					1.8	10.5	2.2	10.0					2.8	9.0	3.4	7.7	
E	M	18	0:50	4:43	13:11	17:05		☽	Th	18	1:56	5:54	14:27	18:20			S	18	3:20	7:35	16:24	20:22	
			1.4	10.4	2.2	10.8					2.3	9.7	3.0	8.8					3.9	7.9	4.0	7.0	
	Tu	19	1:38	5:32	14:02	17:57			F	19	2:52	7:00	15:37	19:32			M	19	4:55	9:15	18:06	22:02	
			1.9	9.9	2.5	9.8					3.2	8.7	3.5	7.8					4.2	7.8	4.5	7.5	
☽	W	20	2:33	6:31	15:02	18:57			S	20	4:07	8:21	17:06	21:03			Tu	20	6:32	10:40	19:19	23:17	
			2.4	9.2	3.2	8.8					3.7	8.1	4.0	7.6					3.7	8.5	3.0	8.5	
	Th	21	3:36	7:42	16:15	20:10		S	S	21	5:36	9:52	18:38	22:35			W	21	7:40	11:39	20:12	. . .	
			3.0	8.6	3.5	8.2					3.7	8.4	3.4	7.9					3.0	9.3	2.6	. . .	
	F	22	4:47	9:00	17:39	21:35			M	22	6:58	11:07	19:47	23:42			Th	22	0:07	8:30	12:22	20:58	
			3.3	8.5	3.5	8.1					3.3	9.1	2.7	8.7					9.2	2.3	10.1	1.7	
	S	23	6:06	10:18	18:57	22:55			Tu	23	8:04	12:02	20:38	. . .		A	F	23	0:48	9:10	13:02	21:30	
			3.2	9.0	3.1	8.6					2.7	10.0	2.3	. . .					10.0	1.8	10.6	1.3	
	S	24	7:17	11:23	20:02	23:55			W	24	0:32	8:52	12:47	21:18		○	S	24	1:20	9:42	13:30	21:57	
			2.8	9.8	2.4	9.2					9.3	2.0	10.6	1.6					10.6	0.5	11.0	0.6	
S	M	25	8:16	12:16	20:53	. . .			Th	25	1:10	9:32	13:24	21:54		E	S	25	1:46	10:07	13:54	22:20	
			2.2	10.4	1.7	. . .					9.7	1.6	10.8	0.9					11.0	1.2	11.3	1.2	
	Tu	26	0:44	9:05	13:01	21:36		○	F	26	1:42	10:08	13:55	22:24			M	26	2:09	10:30	14:16	22:40	
			9.5	1.8	10.8	1.5					10.1	1.4	11.1	1.0					11.3	1.6	11.5	1.7	
○	W	27	1:25	9:45	13:37	22:10		A	S	27	2:09	10:28	14:20	22:46			Tu	27	2:32	10:55	14:40	23:05	
			9.7	1.8	11.0	1.2					10.5	1.4	11.4	1.2					11.7	1.9	11.5	2.2	
	Th	28	1:58	10:18	14:11	22:42		E	S	28	2:32	10:51	14:40	23:08			W	28	2:56	11:21	15:07	23:32	
			9.8	1.4	11.2	1.2					10.7	1:8	11.5	1.8					11.8	2.2	11.5	2.4	
	F	29	2:27	10:45	14:37	23:08			M	29	2:55	11:16	15:03	23:31			Th	29	3:25	11:51	15:36	. . .	
			10.0	1.6	11:3	1.6					11.0	2.2	11.4	2.2					11.8	2.6	11.2	. . .	
	S	30	2:58	11:10	15:03	23:34			Tu	30	3:20	11:41	15:30	23:58			F	30	0:02	3:56	12:22	16:10	
			10.2	2.1	11.3	1.9					11.0	2.6	11.3	2.7					2.5	11.5	2.8	10.5	
A	S	31	3:18	11:37	15:36	23:58			W	31	3:48	12:12	16:05	. . .									
			10.3	2.4	11.3	2.4					11.0	2.7	11.0	. . .									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Calcutta Mean Local Civil, for the meridian 88° 22′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	0:38	4:32	13:04	16:52		☾	Tu	1	1:46	5:35	14:05	18:10			Th	1	2:42	6:36	15:08	19:08	
			2.8	10.4	2.8	9.6					3.2	8.8	3.2	7.7					3.3	8.6	3.0	7.8	
N ☾	S	2	1:22	5:21	13:57	17:46			W	2	2:55	6:50	15:20	19:31		E	F	2	3:54	7:55	16:26	20:29	
			3.2	9.7	3.4	8.5					3.7	8.0	3.6	7.2					3.5	8.3	3.2	7.8	
	M	3	2:17	6:26	15:12	19:05			Th	3	4:23	8:25	16:56	21:05		P	S	3	5:12	9:18	17:50	21:50	
			3.5	8.8	4.1	7.8					3.9	7.9	3.3	7.7					3.5	8.2	2.8	8.6	
	Tu	4	3:39	7:56	16:49	20:48			F	4	5:51	9:53	18:23	22:25			S	4	6:27	10:32	19:04	23:00	
			4.2	6.3	4.2	7.5					3.2	8.8	2.6	9.0					2.8	8.8	2.2	9.8	
	W	5	5:22	9:35	18:22	22:20		E	S	5	7:02	11:00	19:30	23:26			M	5	7:31	11:34	20:05	. . .	
			4.2	8.7	3.5	8.6		P			2.2	9.9	1.7	10.4					1.8	9.8	1.6	. . .	
	Th	6	6:50	10:54	19:31	23:27			S	6	7:58	11:55	20:24	. . .			Tu	6	0:00	8:26	12:25	20:56	
			3.3	9.7	2.5	9.8					1.5	10.6	0.9	. . .					10.9	1.3	10.4	1.3	
	F	7	7:52	11:50	20:22	. . .		●	M	7	0:20	8:46	12:41	21:10		●	W	7	0:48	9:12	13:08	21:40	
			2.0	10.6	1.5	. . .					11.4	0.8	11.4	0.5					11.6	0.9	10.5	1.0	
P E	S	8	0:17	8:46	12:40	21:09			Tu	8	1:05	9:28	13:23	21:54		S	Th	8	1:30	9:52	13:48	22:20	
			10.9	1.2	11.7	0.5					12.2	0.6	11.5	0.9					11.8	0.8	10.5	1.3	
●	S	9	1:05	9:31	13:22	21:50			W	9	1:42	10:06	14:00	22:31			F	9	2:07	10:28	14:23	22:55	
			11.8	0.9	12.2	0.1					12.3	0.5	11.4	1.0					11.7	1.1	10.4	1.6	
	M	10	1:42	10:10	14:00	22:25			Th	10	2:20	10:40	14:35	23:05			S	10	2:40	11:02	14:56	23:30	
			12.2	0.2	12.2	0.4					12.2	1.0	11.1	1.7					11.6	1.4	10.2	2.0	
	Tu	11	2:20	10:46	14:36	23:00		S	F	11	2:52	11:14	15:09	23:40			S	11	3:15	11:34	15:30	. . .	
			12.5	0.4	12.0	0.6					12.0	1.6	10.7	2.3					11.4	1.9	10.1	. . .	
	W	12	2:54	11:24	15:11	23:35			S	12	3:29	11:49	15:44	. . .			M	12	0:01	3:50	12:08	16:02	
			12.4	0.8	11.6	1.2					11.4	2.0	10.1	. . .					2.7	11.0	2.3	9.7	
	Th	13	3:30	11:58	15:47	. . .			S	13	0:16	4:05	12:26	16:21			Tu	13	0:37	4:27	12:47	16:40	
			12.0	1.5	11.0	. . .					3.5	10.6	2.5	9.3					2.8	10.4	2.7	10.0	
S	F	14	0:12	4:05	12:36	16:25			M	14	0:56	4:46	13:10	17:04			W	14	1:15	5:05	13:30	17:24	
			1.5	11.3	2.2	10.1					3.0	9.9	3.0	8.4					3.4	9.6	3.0	8.5	
	S	15	0:53	4:48	13:22	17:12		☽	Tu	15	1:45	5:35	14:04	18:00		☽ A	Th	15	1:59	5:52	14:20	18:15	
			2.8	10.4	2.6	9.1					3.6	8.7	3.4	7.7					3.7	8.8	3.2	7.9	
☽	S	16	1:40	5:37	14:17	18:07			W	16	2:43	6:37	15:07	19:05		E	F	16	2:52	6:51	15:19	19:14	
			3.3	9.4	3.4	8.0					4.1	7.9	3.7	6.9					4.0	8.1	3.4	7.4	
	M	17	2:39	6:42	15:34	19:32		A	Th	17	3:57	8:02	16:31	20:30			S	17	3:54	8:02	16:32	20:27	
			4.0	8.2	4.0	7.0					4.3	7.5	3.7	7.1					4.3	7.6	3.6	7.5	
	Tu	18	4:02	8:15	17:11	21:14		E	F	18	5:18	9:25	17:57	21:50			S	18	5:05	9:18	17:50	21:46	
			4.5	7.5	3.9	7.2					4.1	7.8	3.3	8.0					4.3	7.7	3.6	8.4	
	W	19	5:45	9:50	18:34	22:32			S	19	6:27	10:31	19:02	22:55			M	19	6:15	10:25	19:00	22:51	
			4.1	7.8	3.4	8.1					3.4	8.5	2.7	9.2					3.9	8.4	3.2	9.4	
A	Th	20	7:00	10:56	19:32	23:30			S	20	7:21	11:23	19:54	23:42			Tu	20	7:17	11:22	19:56	23:46	
			3.4	8.8	2.8	9.1					2.7	9.3	2.2	10.1					3.2	8.9	2.4	10.4	
	F	21	7:55	11:45	20:13	. . .			M	21	8:10	12:04	20:36	. . .			W	21	8:10	12:10	20:44	. . .	
			2.8	9.6	2.2	. . .					2.8	9.9	2.1	. . .					2.5	9.7	2.2	. . .	
E	S	22	0:10	8:37	12:27	20:53			Tu	22	0:24	8:48	12:42	21:13		○	Th	22	0:32	8:55	12:58	21:26	
			9.8	2.0	10.1	1.5					10.9	2.0	10.5	1.8					11.1	2.1	10.2	2.1	
	S	23	0:50	9:14	13:00	21:24		○	W	23	1:00	9:22	13:16	21:47		N	F	23	1:12	9:36	13:30	22:05	
			10.4	1.7	10.7	1.3					11.4	1.8	10.7	1.8					11.7	1.7	11.5	2.0	
○	M	24	1:17	9:42	13:27	21:51			Th	24	1:31	9:54	13:50	22:20			S	24	1:52	10:12	14:08	22:41	
			11.2	1.6	11.1	1.3					11.9	1.9	10.9	2.0					12.3	1.6	10.7	2.0	
	Tu	25	1:45	10:10	13:52	22:15		N	F	25	2:05	10:25	14:20	22:50			S	25	2:30	10:50	14:46	23:20	
			11.7	1.6	11.3	1.4					12.0	2.1	10.9	2.0					12.2	1.6	10.7	1.9	
	W	26	2:10	10:36	14:20	22:42			S	26	2:37	10:58	14:53	23:55			M	26	3:08	11:30	15:25	23:59	
			12.0	1.7	11.3	2.2					12.0	2.2	10.6	2.0					11.9	1.6	10.6	2.0	
	Th	27	2:36	11:05	14:48	23:10			S	27	3:12	11:34	15:30	. . .		P	Tu	27	3:49	12:10	16:07	. .	
			12.2	2.2	11.3	2.2					11.7	2.2	10.2	. . .					11.6	1.7	10.0	. . .	
	F	28	3:05	11:10	15:05	23:33			M	28	0:05	3:52	12:16	16:12			W	28	0:42	4:32	12:57	16:52	
			12.1	2.3	11.1	2.7					2:4	11.2	2.3	9.9					2.0	10.8	1.9	9.8	
N	S	29	3:20	11:43	15:38	. . .			Tu	29	0:48	4:37	13:02	17:00		E ☾	Th	29	1:28	5:20	13:50	17:45	
			11.8	2.6	10.2	. . .					2.6	10.4	2.5	9.0					2.3	10.0	2.2	8.8	
	S	30	0:10	3:57	12:22	16:18		☾	W	30	1:40	5:30	14:00	17:57			F	30	2:22	6:17	14:46	18:42	
			2.6	10.8	2.7	9.3					2.8	9.6	2.7	8.3					2.8	9.2	2.4	8.4	
	M	31	0:54	4:40	13:08	17:07											S	31	3:24	7:25	15:56	19:53	
			2.9	9.7	3.0	8.4													3.2	8.4	3.0	8.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Calcutta Mean Local Civil for the meridian 88° 22′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	0:54 0.7	6:39 2.4	12:42 0.1	19:20 3.2
N	S	2	1:39 0.4	7:30 2.6	13:32 —0.1	20:05 3.5
○	S	3	2:22 0.2	8:18 2.7	14:17 —0.2	20:47 3.6
P	M	4	3:04 0.0	9:06 2.8	15:02 —0.2	21:30 3.6
	Tu	5	3:48 0.0	9:52 2.9	15:46 —0.2	22:13 3.6
	W	6	4:34 —0.1	10:42 2.8	16:34 0.0	22:57 3.4
	Th	7	5:19 0.0	11:32 2.7	17:22 0.2	23:41 3.2
E	F	8	6:10 0.1	12:25 2.6	18:16 0.5	. . .
	S	9	0:32 2.9	7:08 0.3	13:24 2.4	19:16 0.8
☾	S	10	1:27 2.6	8:07 0.5	14:35 2.3	20:35 1.1
	M	11	2:34 2.3	9:15 0.6	16:00 2.2	22:16 1.2
	Tu	12	3:52 2.1	10:31 0.7	17:19 2.3	23:42 1.2
	W	13	5:17 2.0	11:37 0.7	18:20 2.5	. . .
	Th	14	0:47 1.0	6:23 2.1	12:28 0.6	19:06 2.7
S	F	15	1:32 0.9	7:12 2.1	13:08 0.5	19:45 2.8
	S	16	2:10 0.7	7:51 2.2	13:43 0.4	20:17 3.0
●	S	17	2:40 0.6	8:25 2.3	14:13 0.3	20:46 3.0
	M	18	3:07 0.5	8:54 2.3	14:42 0.3	21:12 3.1
	Tu	19	3:30 0.5	9:23 2.4	15:12 0.2	21:40 3.1
A	W	20	3:54 0.4	9:54 2.5	15:43 0.2	22:07 3.1
	Th	21	4:21 0.3	10:16 2.5	16:17 0.3	22:37 3.1
	F	22	4:52 0.3	11:00 2.5	16:52 0.4	23:11 3.0
E	S	23	5:26 0.3	11:37 2.5	17:32 0.5	23:46 2.8
	S	24	6:06 0.3	12:20 2.5	18:16 0.7	. . .
	M	25	0:27 2.6	6:50 0.4	13:12 2.4	19:10 0.9
☽	Tu	26	1:17 2.4	7:41 0.5	14:18 2.4	20:19 1.1
	W	27	2:18 2.2	8:46 0.6	15:37 2.4	21:50 1.1
	Th	28	3:39 2.1	10:02 0.6	16:58 2.5	23:18 1.0
	F	29	5:08 2.2	11:19 0.5	18:05 2.8	. . .
N	S	30	0:25 0.7	6:18 2.3	12:22 0.3	19:00 3.1
	S	31	1:19 0.4	7:17 2.6	13:17 0.0	19:47 3.3

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○	M	1	2:05 0.2	8:08 2.8	14:07 —0.1	20:32 3.5
P	Tu	2	2:50 0.0	8:55 3.0	14:52 —0.2	21:15 3.6
	W	3	3:32 —0.2	9:41 3.0	15:38 —0.2	21:57 3.6
	Th	4	4:14 —0.2	10:27 3.1	16:22 —0.1	22:40 3.4
E	F	5	4:57 —0.2	11:12 3.0	17:08 0.1	23:22 3.2
	S	6	5:42 0.0	11:58 2.8	17:56 0.4	. . .
	S	7	0:07 2.9	6:30 0.2	12:52 2.6	18:50 0.7
☾	M	8	0:57 2.5	7:22 0.5	13:54 2.4	19:57 1.0
	Tu	9	1:57 2.2	8:27 0.7	15:14 2.2	21:34 1.2
	W	10	3:19 1.9	9:46 0.9	16:42 2.2	23:25 1.2
	Th	11	4:57 1.9	11:10 0.9	18:00 2.3	. . .
S	F	12	0:40 1.0	6:10 1.9	12:15 0.9	18:52 2.5
	S	13	1:26 0.9	7:05 2.0	13:00 0.7	19:32 2.7
	S	14	2:00 0.7	7:44 2.1	13:33 0.6	20:04 2.7
	M	15	2:26 0.6	8:15 2.3	14:03 0.5	20:29 2.9
A ●	Tu	16	2:47 0.5	8:42 2.4	14:31 0.3	20:52 3.0
	W	17	3:08 0.4	9:07 2.6	15:00 0.2	21:18 3.0
	Th	18	3:30 0.3	9:35 2.7	15:30 0.2	21:45 3.0
E	F	19	3:55 0.1	10:05 2.8	16:00 0.2	22:14 3.0
	S	20	4:25 0.1	10:35 2.9	16:32 0.2	22:46 2.9
	S	21	4:57 0.1	11:09 2.9	17:10 0.4	23:20 2.8
	M	22	5:34 0.2	11:50 2.8	17:52 0.5	. . .
	Tu	23	0:00 2.7	6:15 0.3	12:37 2.7	18:40 0.7
☽	W	24	0:46 2.5	7:02 0.4	13:36 2.5	19:42 0.9
	Th	25	1:47 2.2	8:05 0.6	14:50 2.4	21:02 1.1
N	F	26	3:08 2.1	9:24 0.7	16:18 2.5	22:40 1.0
	S	27	4:45 2.1	10:51 0.6	17:35 2.7	23:59 0.7
	S	28	6:05 2.3	12:04 0.4	18:36 2.9	. . .
	M	29	0:57 0.4	7:05 2.6	13:03 0.2	19:27 3.1

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:45 0.1	7:56 2.9	13:55 0.0	20:12 3.3
○	W	2	2:28 —0.1	8:40 3.1	14:40 —0.1	20:55 3.4
E	Th	3	3:09 —0.3	9:22 3.2	15:24 —0.2	21:36 3.4
	F	4	3:48 —0.3	10:04 3.3	16:06 —0.1	22:17 3.3
	S	5	4:32 —0.3	10:45 3.2	16:49 0.1	23:00 3.1
	S	6	5:10 —0.1	11:30 3.0	17:35 0.3	23:42 2.8
	M	7	5:52 0.2	12:18 2.8	18:22 0.7	. . .
	Tu	8	0:30 2.4	6:39 0.5	13:14 2.5	19:22 1.0
☾	W	9	1:25 2.1	7:35 0.8	14:25 2.3	20:47 1.2
S	Th	10	2:46 1.8	8:56 1.0	15:55 2.2	22:50 1.3
	F	11	4:37 1.7	10:35 1.1	17:22 2.2	. . .
	S	12	0:12 1.0	5:57 1.9	11:50 1.0	18:24 2.3
	S	13	1:00 0.9	6:50 2.0	12:42 0.9	19:07 2.5
A	M	14	1:31 0.8	7:26 2.2	13:18 0.7	19:37 2.6
	Tu	15	1:52 0.6	7:55 2.4	13:48 0.6	20:02 2.7
	W	16	2:14 0.5	8:20 2.6	14:16 0.4	20:26 2.8
● E	Th	17	2:35 0.3	8:43 2.8	14:44 0.3	20:52 2.9
	F	18	2:58 0.1	9:10 2.9	15:12 0.2	21:20 2.9
	S	19	3:26 0.0	9:38 3.0	15:44 0.2	21:51 3.0
	S	20	3:55 0.0	10:10 3.1	16:15 0.2	22:23 2.9
	M	21	4:29 0.0	10:47 3.1	16:58 0.3	23:00 2.8
	Tu	22	5:05 0.1	11:26 3.0	17:35 0.4	23:37 2.6
	W	23	5:50 0.3	12:13 2.8	18:23 0.6	. . .
N	Th	24	0:27 2.4	6:35 0.5	13:07 2.7	19:20 0.8
☽	F	25	1:30 2.2	7:39 0.7	14:19 2.5	20:42 0.9
	S	26	2:58 2.0	9:00 0.8	15:44 2.5	22:19 0.9
	S	27	4:33 2.1	10:33 0.8	17:04 2.6	23:37 0.6
	M	28	5:50 2.4	11:50 0.6	18:10 2.7	. . .
	Tu	29	0:32 0.3	6:45 2.7	12:50 0.4	19:02 3.0
P	W	30	1:20 0.1	7:33 2.9	13:40 0.2	19:50 3.1
E ○	Th	31	2:02 —0.1	8:17 3.2	14:25 0.0	20:30 3.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Madras Mean Local Civil, for the meridian 80° 15′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:40	9:00	15:07	21:12		S	1	2:50	9:17	15:30	21:29		W	1	3:37	10:14	16:30	22:27
			—0.2	3.3	—0.1	3.2				—0.2	3.3	0.2	2.8				0.2	3.1	0.5	2.3
	S	2	3:21	9:40	15:48	21:54		M	2	3:27	9:57	16:10	22:10		Th	2	4:18	10:50	17:12	23:10
			—0.3	3.3	0.0	3.1				—0.1	3.3	0.3	2.6				0.3	3.0	0.6	2.2
	S	3	4:00	10:20	16:29	22:35		Tu	3	4:06	10:36	16:49	22:52		F	3	4:52	11:28	17:54	23:58
			—0.2	3.3	0.2	2.9				0.1	3.2	0.5	2.4				0.5	2.9	0.8	2.0
	M	4	4:37	11:00	17:12	23:16	S	W	4	4:44	11:17	17:34	23:37		S	4	5:37	12:10	18:43	. . .
			0.0	3.1	0.4	2.6				0.3	3.0	0.7	2.2				0.7	2.7	0.8	. . .
	Tu	5	5:17	11:45	17:59	. . .		Th	5	5:26	12:02	18:25	. . .	A	S	5	0:54	6:27	12:57	19:38
			0.2	2.9	0.6	. . .				0.4	2.7	0.9	. . .				1.9	1.0	2.5	0.9
S	W	6	0:04	6:00	12:36	18:53		F	6	0:25	6:10	12:52	19:28	☾	M	6	1:57	7:27	13:50	20:36
			2.3	0.5	2.7	0.9				2.0	0.8	2.5	1.0				1.9	1.1	2.3	0.9
☾	Th	7	1:00	6:48	13:38	20:10	☾	S	7	1:40	7:08	13:52	20:45	E	Tu	7	2:59	8:46	14:54	21:36
			2.0	0.8	2.4	1.1				1.8	1.1	2.3	1.1				1.9	1.2	2.2	0.8
	F	8	2:19	7:57	14:56	21:52	A	S	8	3:07	8:28	15:04	22:00		W	8	4:07	10:07	15:57	22:28
			1.8	1.1	2.2	1.2				1.8	1.3	2.2	1.0				2.1	1.2	2.2	0.7
	S	9	4:00	9:39	16:26	23:16		M	9	4:22	10:05	16:15	22:57		Th	9	5:05	11:15	16:59	23:17
			1.7	1.3	2.2	1.1				1.9	1.3	2.2	0.9				2.3	1.1	2.2	0.5
	S	10	5:24	11:12	17:30	. . .		Tu	10	5:20	11:17	17:12	23:39		F	10	5:54	12:07	17:51	. . .
			1.8	1.2	2.2	. . .				2.1	1.2	2.2	0.7				2.6	0.9	2.3	. . .
A	M	11	0:07	6:15	12:07	18:18	E	W	11	6:02	12:07	18:00	. . .		S	11	0:02	6:38	12:54	18:38
			0.9	2.0	1.0	2.3				2.3	1.0	2.3	. . .				0.4	2.8	0.7	2.4
	Tu	12	0:40	6:52	12:47	18:52		Th	12	0:12	6:37	12:47	18:40		S	12	0:44	7:18	13:37	19:23
			0.8	2.3	0.9	2.4				0.6	2.5	0.8	2.4				0.2	3.1	0.5	2.5
	W	13	1:07	7:18	13:22	19:23		F	13	0:45	7:12	13:23	19:16		M	13	1:24	8:00	14:16	20:08
			0.6	2.5	0.7	2.6				0.4	2.8	0.6	2.5				0.0	3.3	0.4	2.6
E	Th	14	1:31	7:45	13:52	19:54		S	14	1:17	7:45	13:59	19:52	● N	Tu	14	2:08	8:40	14:57	20:52
			0.4	2.7	0.5	2.7				0.2	3.0	0.5	2.6				—0.1	3.4	0.2	2.7
	F	15	1:57	8:12	14:22	20:24	●	S	15	1:52	8:21	14:35	20:29		W	15	2:50	9:21	15:38	21:39
			0.3	2.9	0.3	2.7				0.0	3.2	0.4	2.7				—0.1	3.4	0.2	2.7
●	S	16	2:24	8:44	14:53	20:54		M	16	2:29	8:57	15:10	21:07		Th	16	3:34	10:04	16:22	22:27
			0.1	3.1	0.3	2.8				—0.1	3.3	0.3	2.7				—0.1	3.4	0.2	2.6
	S	17	2:55	9:16	15:27	21:27		Tu	17	3:06	9:35	15:47	21:48	P	F	17	4:20	10:48	17:12	23:20
			0.0	3.2	0.2	2.8				—0.1	3.4	0.2	2.7				0.1	3.3	0.2	2.5
	M	18	3:28	9:50	16:02	22:03	N	W	18	3:47	10:15	16:32	22:34		S	18	5:10	11:35	18:05	. . .
			—0.1	3.3	0.2	2.8				0.0	3.3	0.3	2.6				0.3	3.1	0.3	. . .
	Tu	19	4:08	10:30	16:40	22:42		Th	19	4:29	10:58	17:18	23:25		S	19	0:17	6:05	12:27	19:00
			0.0	3.2	0.3	2.7				0.1	3.2	0.3	2.4				2.4	0.5	2.9	0.4
	W	20	4:43	11:10	17:23	23:27		F	20	5:17	11:47	18:12	. . .	☽	M	20	1:20	7:07	13:26	20:04
			0.1	3.1	0.4	2.5				0.3	3.0	0.4	. . .				2.3	0.8	2.7	0.4
N	Th	21	5:27	11:57	18:14	. . .		S	21	0:24	6:12	12:40	19:14	E	Tu	21	2:30	8:23	14:28	21:10
			0.3	2.9	0.6	. . .				2.3	0.6	2.8	0.5				2.3	1.0	2.5	0.5
	F	22	0:22	6:21	12:51	19:17	☽	S	22	1:30	7:18	13:42	20:24		W	22	3:46	9:49	15:39	22:17
			2.3	0.5	2.8	0.7				2.2	0.8	2.7	0.6				2.3	1.0	2.4	0.5
☽	S	23	1:29	7:25	13:57	20:34	P	M	23	2:47	8:41	14:54	21:37		Th	23	4:56	11:07	16:52	23:17
			2.1	0.8	2.6	0.8				2.1	1.0	2.5	0.5				2.4	1.0	2.3	0.4
	S	24	2:54	8:49	15:18	22:00	E	Tu	24	4:07	10:09	16:07	22:44		F	24	5:55	12:10	17:52	. . .
			2.1	0.9	2.5	0.7				2.3	1.0	2.5	0.5				2.6	0.9	2.3	. . .
	M	25	4:20	10:21	16:36	23:10		W	25	5:14	11:22	17:12	23:39		S	25	0:07	6:45	13:04	18:46
			2.2	0.9	2.5	0.5				2.5	0.9	2.5	0.3				0.4	2.8	0.8	2.3
	Tu	26	5:32	11:38	17:41	. . .		Th	26	6:10	12:20	18:10	. . .		S	26	0:52	7:28	13:49	19:32
			2.4	0.8	2.6	. . .				2.7	0.7	2.5	. . .				0.3	2.9	0.7	2.3
P E	W	27	0:05	6:27	12:36	18:35		F	27	0:27	6:48	13:10	19:00	S	M	27	1:34	8:07	14:28	20:12
			0.3	2.7	0.5	2.8				0.2	2.9	0.6	2.6				0.2	3.1	0.6	2.3
	Th	28	0:52	7:15	13:24	19:22		S	28	1:08	7:40	13:55	19:45	○	Tu	28	2:05	8:42	15:04	20:51
			0.1	3.0	0.4	2.9				0.1	3.1	0.5	2.6				0.2	3.1	0.5	2.3
	F	29	1:35	7:58	14:07	20:07	○	S	29	1:48	8:20	14:36	20:27		W	29	2:40	9:17	15:35	21:27
			—0.3	3.2	0.2	2.9				0.0	3.2	0.4	2.6				0.2	3.1	0.5	2.3
○	S	30	2:12	8:38	14:52	20:49		M	30	2:24	8:58	15:16	21:06		Th	30	3:14	9:50	16:07	22:04
			—0.3	3.3	0.2	2.9				0.0	3.3	0.4	2.5				0.2	3.1	0.5	2.3
							S	Tu	31	3:00	9:35	15:52	21:46							
										0.1	3.2	0.5	2.4							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1 6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Madras Mean Local Civil, for the meridian 80° 15′ E.: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:50 0.3	10:22 3.0	16:43 0.5	22:41 2.3
	S	2	4:27 0.3	10:56 2.9	17:18 0.5	23:22 2.2
A	S	3	5:08 0.6	11:31 2.8	17:57 0.6	. . . . . .
	M	4	0:08 2.2	5:51 0.8	12:11 2.6	18:39 0.6
E	Tu	5	0:52 2.1	6:39 0.9	12:57 2.5	19:26 0.6
☾	W	6	1:47 2.1	7:38 1.1	13:48 2.3	20:20 0.7
	Th	7	2:45 2.1	8:52 1.2	14:50 2.2	21:20 0.6
	F	8	4:07 2.3	10:15 1.1	15:58 2.2	22:22 0.6
	S	9	5:12 2.5	11:27 1.0	17:08 2.2	23:21 0.4
	S	10	6:06 2.8	12:24 0.8	18:08 2.3	. . . . . .
	M	11	0:15 0.2	6:55 3.0	13:13 0.6	19:02 2.5
N	Tu	12	1:05 0.0	7:41 3.3	13:58 0.3	19:53 2.6
●	W	13	1:54 —0.1	8:23 3.4	14:40 0.2	20:40 2.7
	Th	14	2:38 —0.1	9:07 3.5	15:54 0.1	21:29 2.8
P	F	15	3:25 —0.1	9:50 3.5	16:07 0.0	22:17 2.8
	S	16	4:10 0.0	10:34 3.4	16:54 0.0	23:08 2.7
	S	17	5:00 0.2	11:20 3.2	17:42 0.1	23:59 2.6
E	M	18	5:52 0.4	12:06 3.0	18:35 0.2	. . . . . .
	Tu	19	0:55 2.5	6:50 0.7	13:00 2.7	19:32 0.4
☽	W	20	2:00 2.4	7:58 0.9	14:02 2.4	20:38 0.5
	Th	21	3:17 2.3	9:27 1.1	15:14 2.2	21:47 0.6
	F	22	4:34 2.4	10:57 1.1	16:34 2.1	22:57 0.6
	S	23	5:42 2.5	12:10 1.0	17:47 2.1	23:54 0.6
	S	24	6:34 2.7	13:04 0.9	18:48 2.1	. . . . . .
S	M	25	0:42 0.5	7:20 2.8	13:45 0.9	19:27 2.2
	Tu	26	1:21 0.4	7:57 2.9	14:22 0.6	20:05 2.3
○	W	27	1:57 0.4	8:29 3.0	14:51 0.5	20:39 2.3
	Th	28	2:30 0.3	8:59 3.1	15:17 0.5	21:11 2.4
	F	29	3:02 0.3	9:27 3.0	15:43 0.4	21:42 2.4
	S	30	3:30 0.3	9:54 3.0	16:09 0.4	22:15 2.5
A	S	31	4:04 0.4	10:25 3.0	16:39 0.4	22:47 2.5

AUGUST.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	4:38 0.5	10:57 2.9	17:13 0.4	23:24 2.5
	Tu	2	5:16 0.6	11:32 2.7	17:49 0.4	. . . . . .
	W	3	0:02 2.5	6:00 0.7	12:11 2.5	18:33 0.5
☾	Th	4	0:52 2.4	6:51 0.9	12:57 2.4	19:22 0.5
	F	5	1:56 2.3	7:57 1.1	13:55 2.2	20:22 0.6
	S	6	3:09 2.3	9:20 1.2	15:14 2.1	21:35 0.6
	S	7	4:29 2.5	10:46 1.0	16:37 2.1	22:50 0.5
N	M	8	5:36 2.7	11:53 0.8	17:50 2.3	23:54 0.3
	Tu	9	6:30 2.9	12:49 0.5	18:48 2.5	. . . . . .
	W	10	0:49 0.1	7:22 3.2	13:37 0.2	19:40 2.7
●	Th	11	1:41 0.0	8:05 3.4	14:21 0.0	20:28 2.9
P	F	12	2:28 —0.2	8:48 3.5	15:05 —0.2	21:14 3.1
	S	13	3:13 —0.2	9:32 3.5	15:47 —0.2	22:00 3.1
E	S	14	3:57 —0.1	10:14 3.4	16:30 —0.2	22:45 3.0
	M	15	4:44 0.1	10:58 3.2	17:12 —0.1	23:30 2.9
	Tu	16	5:31 0.3	11:41 2.9	18:01 0.1	. . . . . .
	W	17	0:24 2.7	6:26 0.6	12:33 2.6	18:54 0.4
☽	Th	18	1:26 2.5	7:30 0.9	13:35 2.2	19:58 0.7
	F	19	2:42 2.3	9:00 1.1	14:52 2.0	21:15 0.9
	S	20	4:07 2.3	10:47 1.2	16:32 1.9	22:42 0.9
S	S	21	5:27 2.4	12:07 1.3	17:48 2.0	23:48 0.8
	M	22	6:24 2.5	13:00 0.9	18:42 2.1	. . . . . .
	Tu	23	0:39 0.7	7:10 2.7	13:37 0.7	19:25 2.2
	W	24	1:17 0.6	7:43 2.8	14:06 0.6	19:59 2.3
	Th	25	1:47 0.5	8:12 2.9	14:30 0.5	20:26 2.4
○	F	26	2:17 0.4	8:37 2.9	14:51 0.4	20:52 2.6
A	S	27	2:46 0.3	9:02 3.0	15:14 0.3	21:18 2.7
E	S	28	3:12 0.3	9:27 3.0	15:38 0.2	21:46 2.8
	M	29	3:44 0.3	9:55 2.9	16:05 0.1	22:15 2.8
	Tu	30	4:14 0.3	10:27 2.8	16:35 0.2	22:47 2.8
	W	31	4:50 0.4	11:00 2.7	17:10 0.2	23:26 2.7

SEPTEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	5:28 0.6	11:37 2.6	17:50 0.4	. . . . . .
	F	2	0:12 2.6	6:16 0.7	12:21 2.4	18:37 0.5
☾	S	3	1:07 2.5	7:16 0.9	13:21 2.2	19:37 0.7
	S	4	2:22 2.4	8:33 1.1	14:41 2.0	20:57 0.7
N	M	5	3:48 2.4	10:11 1.0	16:18 2.1	22:24 0.7
	Tu	6	5:06 2.6	11:30 0.7	17:38 2.3	23:40 0.5
	W	7	6:07 2.8	12:28 0.4	18:37 2.6	. . . . . .
	Th	8	0:39 0.3	7:00 3.0	13:16 0.1	19:27 2.9
	F	9	1:28 0.0	7:42 3.3	13:58 —0.2	20:11 3.1
P ●	S	10	2:14 —0.1	8:27 3.4	14:40 —0.3	20:52 3.3
E	S	11	2:59 —0.2	9:08 3.4	15:20 —0.4	21:35 3.3
	M	12	3:40 —0.2	9:51 3.3	16:00 —0.3	22:19 3.3
	Tu	13	4:24 0.0	10:34 3.1	16:42 —0.1	23:02 3.1
	W	14	5:99 0.3	11:17 2.8	17:25 0.2	23:51 2.9
	Th	15	6:00 0.6	12:06 2.5	18:12 0.5	. . . . . .
☽	F	16	0:49 2.6	7:00 0.9	13:07 2.1	19:10 0.8
S	S	17	2:06 2.4	8:26 1.2	14:35 1.9	20:32 1.0
	S	18	3:31 2.2	10:25 1.2	16:23 1.8	22:20 1.2
	M	19	5:00 2.3	11:52 1.0	17:44 1.9	23:37 1.0
	Tu	20	6:04 2.4	12:41 0.8	18:37 2.1	. . . . . .
	W	21	0:29 0.9	6:50 2.5	13:14 0.7	19:15 2.3
	Th	22	1:07 0.7	7:21 2.6	13:39 0.5	19:42 2.5
A	F	23	1:38 0.6	7:47 2.7	14:00 0.4	20:08 2.6
○	S	24	2:05 0.4	8:10 2.8	14:20 0.3	20:28 2.8
E	S	25	2:30 0.3	8:35 2.9	14:42 0.2	20:52 2.9
	M	26	2:55 0.2	9:02 2.9	15:07 0.1	21:18 3.0
	Tu	27	3:24 0.2	9:30 2.9	15:33 0.0	21:47 3.1
	W	28	3:54 0.2	9:59 2.8	16:03 0.0	22:20 3.1
	Th	29	4:29 0.3	10:32 2.7	16:39 0.1	22:59 3.0
	F	30	5:08 0.5	11:10 2.5	17:18 0.3	23:42 2.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Madras Mean Local Civil, for the meridian 80° 15′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	5:52 0.6	11:57 2.3	18:02 0.5	. . . . . .
N ☾	S	2	0:35 2.6	6:48 0.8	12:57 2.1	19:04 0.7
	M	3	1:42 2.5	8:06 0.9	14:22 2.0	20:27 0.9
	Tu	4	3:08 2.4	9:45 0.9	16:02 2.1	22:05 0.9
	W	5	4:34 2.5	11:07 0.7	17:20 2.3	23:26 0.7
	Th	6	5:40 2.7	12:04 0.3	18:20 2.7	. . . . . .
	F	7	0:27 0.4	6:35 2.9	12:52 0.1	19:07 3.0
P E	S	8	1:16 0.1	7:21 3.1	13:34 —0.2	19:51 3.3
●	S	9	2:00 0.0	8:05 3.2	14:14 —0.3	20:32 3.4
	M	10	2:42 —0.1	8:47 3.2	14:52 —0.4	21:14 3.5
	Tu	11	3:23 —0.1	9:28 3.1	15:32 —0.3	21:55 3.4
	W	12	4:05 0.0	10:10 2.9	16:11 —0.1	22:37 3.3
	Th	13	4:48 0.3	10:52 2.7	16:51 0.1	23:22 3.0
S	F	14	5:34 0.5	11:40 2.3	17:34 0.5	. . . . . .
	S	15	0:12 2.7	6:30 0.8	12:38 2.0	18:25 0.8
☽	S	16	1:14 2.5	7:50 1.0	14:05 1.8	19:36 1.1
	M	17	2:35 2.2	9:40 1.2	15:55 1.7	21:29 1.3
	Tu	18	4:11 2.2	11:09 1.0	17:20 1.9	23:05 1.2
	W	19	5:22 2.2	12:00 0.8	18:12 2.1	. . . . . .
A	Th	20	0:05 1.0	6:10 2.3	12:35 0.7	18:50 2.3
	F	21	0:46 0.9	6:45 2.4	13:02 0.5	19:15 2.5
E	S	22	1:18 0.7	7:14 2.5	13:22 0.4	19:37 2.7
	S	23	1:44 0.5	7:41 2.6	13:44 0.2	20:02 2.9
○	M	24	2:11 0.4	8:08 2.7	14:09 0.1	20:18 3.1
	Tu	25	2:38 0.3	8:36 2.7	14:36 0.0	20:56 3.2
	W	26	3:08 0.3	9:06 2.8	15:06 —0.1	21:28 3.3
	Th	27	3:40 0.2	9:37 2.8	15:39 —0.1	22:02 3.3
	F	28	4:15 0.3	10:14 2.7	16:15 0.0	22:41 3.1
N	S	29	4:54 0.4	10:56 2.5	16:57 0.2	23:24 3.0
	S	30	5:41 0.5	11:45 2.3	17:44 0.5	. . . . . .
	M	31	0:14 2.8	6:38 0.7	12:48 2.1	18:44 0.7

NOVEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
☾	Tu	1	1:16 2.6	7:50 0.8	14:08 2.0	20:05 1.0
	W	2	2:34 2.4	9:18 0.7	15:44 2.1	21:45 1.0
	Th	3	4:00 2.4	10:38 0.6	17:04 2.4	23:11 0.9
	F	4	5:10 2.6	11:37 0.4	18:02 2.7	. . . . . .
E P	S	5	0:12 0.6	6:08 2.7	12:27 0.1	18:51 3.0
	S	6	1:02 0.4	7:00 2.9	13:10 —0.1	19:34 3.2
●	M	7	1:48 0.2	7:44 2.9	13:50 —0.3	20:15 3.4
	Tu	8	2:29 0.1	8:26 3.0	14:27 —0.3	20:57 3.5
	W	9	3:11 0.1	9:06 2.9	15:06 —0.2	21:35 3.5
	Th	10	3:50 0.2	9:48 2.7	15:45 —0.1	22:15 3.4
S	F	11	4:28 0.3	10:30 2.5	16:22 0.1	22:57 3.1
	S	12	5:14 0.6	11:16 2.4	17:02 0.4	23:40 2.9
	S	13	6:04 0.7	12:08 2.0	17:48 0.8	. . . . . .
	M	14	0:28 2.6	7:07 1.0	13:20 1.8	18:45 1.1
☽	Tu	15	1:30 2.4	8:28 1.0	14:52 1.7	20:07 1.4
	W	16	2:45 2.2	9:50 1.0	16:23 1.8	22:00 1.4
A	Th	17	4:06 2.1	10:55 0.9	17:25 2.0	23:19 1.3
E	F	18	5:07 2.1	11:41 0.8	18:07 2.2	. . . . . .
	S	19	0:09 1.1	5:54 2.2	12:12 0.6	18:38 2.5
	S	20	0:47 0.9	6:33 2.3	12:41 0.5	19:08 2.5
	M	21	1:20 0.7	7:07 2.4	13:10 0.2	19:38 3.0
	Tu	22	1:51 0.5	7:40 2.5	13:40 0.1	20:09 3.2
○	W	23	2:23 0.4	8:12 2.6	14:12 —0.1	20:40 3.3
	Th	24	2:57 0.3	8:48 2.7	14:47 —0.1	21:15 3.4
N	F	25	3:29 0.3	9:26 2.7	15:25 —0.1	21:52 3.4
	S	26	4:07 0.2	10:07 2.7	16:04 0.0	22:32 3.3
	S	27	4:49 0.3	10:51 2.5	16:47 0.2	23:14 3.1
	M	28	5:36 0.4	11:44 2.4	17:36 0.4	. . . . . .
	Tu	29	0:02 2.9	6:30 0.5	12:42 2.2	18:33 0.7
☾	W	30	0:59 2.7	7:34 0.6	13:54 2.1	19:47 0.9

DECEMBER.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	2:05 2.5	8:50 0.6	15:21 2.2	21:20 1.1
E	F	2	3:24 2.4	10:03 0.5	16:41 2.3	22:49 1.0
P	S	3	4:37 2.4	11:08 0.4	17:45 2.6	23:57 0.8
	S	4	5:44 2.4	12:08 0.2	18:36 2.9	. . . . . .
	M	5	0:50 0.6	6:39 2.5	12:50 0.1	19:21 3.1
	Tu	6	1:38 0.5	7:27 2.6	13:32 0.0	20:02 3.3
●	W	7	2:20 0.3	8:10 2.6	14:08 0.3	20:42 3.4
S	Th	8	3:00 0.3	8:50 2.6	14:46 —0.1	21:19 3.4
	F	9	3:38 0.3	9:31 2.5	15:22 0.0	21:56 3.4
	S	10	4:15 0.4	10:11 2.5	16:02 0.1	22:35 3.2
	S	11	4:55 0.4	10:54 2.3	16:40 0.4	23:11 3.0
	M	12	5:37 0.6	11:38 2.2	17:20 0.6	23:50 2.8
	Tu	13	6:21 0.7	12:32 2.0	18:07 0.9	. . . . . .
	W	14	0:32 2.6	7:13 0.8	13:32 1.9	18:56 1.1
☽ A	Th	15	1:23 2.3	8:12 0.9	14:37 1.8	20:16 1.3
E	F	16	2:22 2.1	9:17 0.9	15:56 1.9	21:47 1.4
	S	17	3:33 2.0	10:18 0.9	17:02 2.1	23:12 1.3
	S	18	4:41 2.0	11:10 0.7	17:52 2.3	. . . . .
	M	19	0:08 1.1	5:42 2.1	11:53 0.5	18:35 2.6
	Tu	20	0:50 0.9	6:31 2.2	12:35 0.3	19:12 2.9
	W	21	1:32 0.7	7:18 2.4	13:14 0.1	19:50 3.2
○	Th	22	2:09 0.5	7:56 2.5	13:55 0.0	20:27 3.3
N	F	23	2:45 0.3	8:37 2.7	14:35 —0.1	21:05 3.4
	S	24	3:20 0.2	9:19 2.7	15:16 —0.1	21:44 3.5
	S	25	4:00 0.1	10:03 2.7	15:57 —0.1	22:25 3.4
	M	26	4:42 0.1	10:50 2.7	16:42 0.1	23:05 3.3
P	Tu	27	5:27 0.1	11:39 2.6	17:32 0.3	23:50 3.1
	W	28	6:17 0.2	12:32 2.4	18:24 0.6	. . . . . .
E ☾	Th	29	0:40 2.8	7:11 0.4	13:33 2.3	19:27 0.9
	F	30	1:38 2.6	8:14 0.5	14:50 2.3	20:50 1.1
	S	31	2:48 2.3	9:27 0.6	16:12 2.3	22:25 1.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 1.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Madras Mean Local Civil, for the meridian 80° 15′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a.m.), all greater are in the afternoon (p.m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:41 2.2	7:20 0.7	13:10 1.6	18:42 0.6	
N	S	2	1:24 2.3	7:53 0.6	13:51 1.7	19:26 0.5	
○	S	3	2:01 2.4	8:26 0.5	14:29 1.8	20:07 0.4	
P	M	4	2:35 2.5	8:57 0.4	15:06 1.9	20:45 0.4	
	Tu	5	3:09 2.5	9:28 0.3	15:44 2.0	21:24 0.5	
	W	6	3:42 2.4	10:00 0.3	16:20 2.0	22:01 0.6	
	Th	7	4:15 2.3	10:32 0.3	16:58 2.0	22:41 0.7	
E	F	8	4:53 2.1	11:11 0.4	17:39 1.9	23:22 0.8	
	S	9	5:30 1.9	11:50 0.5	18:27 1.8	. . . . . .	
☾	S	10	0:09 1.1	6:06 1.7	12:32 0.6	19:28 1.8	
	M	11	1:15 1.2	6:52 1.5	13:26 0.7	20:55 1.7	
	Tu	12	3:51 1.2	8:22 1.4	14:44 0.8	22:46 1.8	
	W	13	6:11 1.2	10 53 1.3	16:58 0.9	23:56 2.0	
	Th	14	6:59 1.0	12:20 1.4	17:48 0.8	. . . . . .	
S	F	15	0:45 2.1	7:33 0.8	13:14 1.6	18:44 0.7	
	S	16	1:25 2.2	8:02 0.6	13:55 1.7	19:26 0.6	
●	S	17	1:59 2.3	8:29 0.5	14:29 1.8	20:01 0.5	
	M	18	2:25 2.4	8:49 0.5	14:58 1.8	20:30 0.5	
	Tu	19	2:51 2.4	9:11 0.4	15:26 1.9	20:57 0.5	
A	W	20	3:15 2.4	9:34 0.4	15:52 1.9	21:24 0.6	
	Th	21	3:39 2.3	9:56 0.4	16:16 1.9	21:52 0.6	
	F	22	4:05 2.2	10:27 0.4	16:40 1.9	22:22 0.6	
E	S	23	4:31 2.1	10:52 0.4	17:08 1.9	22:55 0.8	
	S	24	4:55 2.0	11:19 0.5	17:40 1.9	23:31 0.9	
	M	25	5:21 1.8	11:50 0.6	18:18 1.8	. . . . . .	
☽	Tu	26	0:15 1.0	5:50 1.6	12:30 0.7	18:18 1.7	
	W	27	1:21 1.2	6:26 1.4	13:22 0.9	20:57 1.7	
	Th	28	3:55 1.3	9:05 1.3	15:20 0.9	23:11 1.8	
	F	29	6:34 1.1	12:05 1.3	17:20 0.9	. . . . . .	
N	S	30	0:25 2.0	7:12 0.8	13:05 1.5	19:33 0.7	
	S	31	1:14 2.2	7:45 0.6	13:48 1.7	19:25 0.6	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	M	1	1:54 2.3	8:16 0.5	14:25 1.9	20:06 0.5	
P	Tu	2	2:27 2.4	8:46 0.3	15:05 2.1	20:45 0.4	
	W	3	3:04 2.4	9:15 0.2	15:33 2.2	21:21 0.4	
	Th	4	3:34 2.4	9:47 0.2	15:50 2.2	21:55 0.4	
E	F	5	4:09 2.3	10:17 0.2	16:30 2.2	22:29 0.6	
	S	6	4:38 2.1	10:49 0.3	17:15 2.1	23:04 0.7	
	S	7	5:07 2.0	11:20 0.4	17:54 2.0	23:41 0.9	
☾	M	8	5:34 1.8	11:54 0.5	18:39 1.9	. . . . . .	
	Tu	9	0:25 1.1	6:02 1.6	12:33 0.7	19:42 1.7	
	W	10	1:35 1.3	6:48 1.4	13:37 0.9	21:29 1.7	
	Th	11	6:21 1.3	10:25 1.3	15:37 1.0	23:33 1.8	
S	F	12	7:04 1.0	12:29 1.3	17:49 1.0	. . . . . .	
	S	13	0:34 1.9	7:29 0.8	13:18 1.5	18:48 0.8	
	S	14	1:16 2.1	7:52 0.6	13:54 1.7	19:28 0.7	
	M	15	1:49 2.2	8:14 0.5	14:24 1.8	20:00 0.6	
A ●	Tu	16	2:15 2.3	8:35 0.4	14:49 2.0	20:26 0.5	
	W	17	2:40 2.3	8:56 0.4	15:12 2.1	20:51 0.5	
	Th	18	3:04 2.3	9:18 0.3	15:34 2.1	21:16 0.5	
E	F	19	3:29 2.3	9:40 0.3	15:54 2.1	21:41 0.5	
	S	20	3:52 2.2	10:01 0.3	16:16 2.2	22:09 0.5	
	S	21	4:14 2.1	10:25 0.3	16:39 2.2	22:38 0.6	
	M	22	4:35 2.0	10:50 0.4	17:09 2.1	23:10 0.7	
	Tu	23	4:57 1.9	11:16 0.5	17:42 2.0	23:45 0.9	
☽	W	24	5:18 1.7	11:48 0.6	18:27 1.8	. . . . . .	
	Th	25	0:31 1.1	5:45 1.5	12:31 0.8	19:35 1.7	
N	F	26	2:01 1.3	6:35 1.3	14:04 1.0	22:09 1.6	
	S	27	6:19 1.1	12:06 1.3	17:09 1.0	. . . . . .	
	S	28	0:11 1.8	6:54 0.9	13:01 1.5	18:36 0.8	
	M	29	1:02 2.0	7:24 0.7	13:37 1.8	19:25 0.6	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	1:41 2.2	7:55 0.5	14:10 2.1	20:04 0.5	
○	W	2	2:15 2.3	8:25 0.3	14:39 2.2	20:39 0.4	
E	Th	3	2:51 2.4	8:54 0.2	15:11 2.4	21:11 0.3	
	F	4	3:28 2.3	9:23 0.1	15:43 2.4	21:42 0.4	
	S	5	3:49 2.3	9:52 0.2	16:15 2.4	22:12 0.5	
	S	6	4:16 2.1	10:20 0.2	16:46 2.3	22:43 0.6	
	M	7	4:41 2.0	10:50 0.3	17:18 2.1	23:15 0.8	
	Tu	8	5:13 1.8	11:18 0.5	17:52 2.0	23:50 1.0	
☾	W	9	5:48 1.6	11:50 0.7	18:32 1.8	. . . . . .	
S	Th	10	0:31 1.2	6:39 1.4	12:27 1.0	19:42 1.6	
	F	11	2:04 1.3	8:20 1.3	14:18 1.2	22:39 1.6	
	S	12	5:53 1.1	12:35 1.3	18:00 1.1	. . . . . .	
	S	13	0:14 1.7	7:05 0.9	13:10 1.6	18:50 1.0	
A	M	14	0:58 1.9	7:29 0.7	13:40 1.8	19:24 0.8	
	Tu	15	1:30 2.0	7:49 0.6	14:04 2.0	19:51 0.6	
	W	16	1:57 2.1	8:09 0.4	14:25 2.1	20:16 0.5	
● E	Th	17	2:25 2.2	8:31 0.3	14:46 2.2	20:40 0.4	
	F	18	2:51 2.3	8:54 0.3	15:08 2.3	21:04 0.4	
	S	19	3:15 2.2	9:14 0.3	15:29 2.3	21:29 0.4	
	S	20	3:37 2.2	9:35 0.3	15:50 2.3	21:54 0.4	
	M	21	3:59 2.1	9:59 0.3	16:15 2.3	22:22 0.5	
	Tu	22	4:19 2.0	10:22 0.4	16:44 2.2	22:52 0.7	
	W	23	4:40 1.8	10:50 0.5	17:15 2.1	23:27 0.8	
N	Th	24	5:05 1.7	11:22 0.7	17:53 1.9	. . . . . .	
☽	F	25	0:09 1.0	5:35 1.5	12:01 0.9	18:49 1.7	
	S	26	1:16 1.2	6:32 1.3	13:26 1.1	20:49 1.5	
	S	27	4:29 1.2	11:31 1.4	17:12 1.1	23:39 1.6	
	M	28	6:15 1.0	12:34 1.6	18:34 0.9	. . . . . .	
	Tu	29	0:40 1.8	6:49 0.7	13:12 1.9	19:18 0.7	
P	W	30	1:23 2.0	7:25 0.5	13:46 2.1	19:55 0.5	
E ○	Th	31	2:01 2.1	7:56 0.3	14:18 2.3	20:27 0.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 1.0 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Colombo Mean Local Civil, for the meridian 79° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	2:32 2.2	8:27 0.2	14:49 2.5	20:57 0.3
	S	2	3:01 2.2	8:55 0.1	15:21 2.5	21:27 0.4
	S	3	3:29 2.1	9:25 0.2	15:50 2.5	21:55 0.5
	M	4	3:56 2.0	9:52 0.2	16:18 2.3	22:24 0.6
	Tu	5	4:23 1.9	10:20 0.4	16:45 2.2	22:58 0.7
S	W	6	4:48 1.8	10:46 0.6	17:15 2.0	23:22 0.9
☾	Th	7	5:08 1.6	11:15 0.8	17:46 1.8	23:57 1.0
	F	8	5:36 1.4	11:45 1.0	18:30 1.6	. . . . . .
	S	9	0:55 1.2	6:55 1.3	12:55 1.2	20:14 1.5
	S	10	5:50 1.2	12:06 1.4	17:48 1.2	23:20 1.5
A	M	11	6:24 1.0	12:40 1.6	18:35 1.0	. . . . . .
	Tu	12	0:22 1.7	6:46 0.8	13:05 1.8	19:06 0.8
	W	13	1:01 1.9	7:08 0.7	13:30 2.0	19:31 0.6
E	Th	14	1:36 2.0	7:34 0.5	13:58 2.1	19:59 0.5
	F	15	2:05 2.1	7:59 0.4	14:17 2.3	20:24 0.4
●	S	16	2:33 2.1	8:21 0.3	14:40 2.4	20:50 0.4
	S	17	2:56 2.1	8:45 0.3	15:05 2.4	21:16 0.4
	M	18	3:21 2.1	9:10 0.3	15:30 2.4	21:44 0.4
	Tu	19	3:46 2.0	9:35 0.3	15:57 2.4	22:11 0.5
	W	20	4:10 1.9	10:04 0.4	16:25 2.3	22:41 0.6
N	Th	21	4:36 1.8	10:34 0.5	16:58 2.1	23:16 0.7
	F	22	5:09 1.7	11:09 0.7	17:34 1.9	23:59 0.9
☽	S	23	5:53 1.6	11:58 1.0	18:25 1.7	. . . . . .
	S	24	0:57 1.0	7:27 1.4	13:35 1.2	20:10 1.5
	M	25	2:49 1.1	10:25 1.5	16:55 1.1	22:47 1.5
	Tu	26	5:04 1.0	11:58 1.7	18:20 0.9	. . . . . .
P. E.	W	27	0:10 1.7	6:06 0.8	12:44 2.0	19:05 0.7
	Th	28	0:56 1.8	6:47 0.5	13:21 2.2	19:41 0.6
	F	29	1:34 1.9	7:25 0.4	13:56 2.4	20:14 0.5
○	S	30	2:09 2.0	7:58 0.3	14:28 2.5	20:43 0.4

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	2:41 2.0	8:29 0.2	15:00 2.5	21:12 0.4
	M	2	3:11 2.0	9:00 0.3	15:27 2.4	21:41 0.5
	Tu	3	3:43 1.9	9:28 0.4	15:55 2.3	22:09 0.6
S	W	4	4:11 1.8	9:55 0.5	16:20 2.2	22:35 0.6
	Th	5	4:40 1.7	10:24 0.6	16:49 2.1	23:08 0.7
	F	6	5:10 1.6	10:55 0.8	17:19 1.9	23:40 0.8
☾	S	7	5:50 1.5	11:35 1.0	17:56 1.7	. . . . . .
A	S	8	0:27 1.0	7:11 1.3	12:34 1.2	19:02 1.5
	M	9	1:46 1.1	9:57 1.4	15:30 1.3	21:35 1.5
	Tu	10	4:26 1.0	11:36 1.6	17:58 1.1	23:35 1.5
E	W	11	5:37 0.9	12:17 1.8	18:35 0.9	. . . . . .
	Th	12	0:21 1.7	6:15 0.8	12:50 2.0	19:08 0.7
	F	13	1:02 1.8	6:50 0.6	13:20 2.2	19:40 0.6
	S	14	1:37 1.8	7:22 0.5	13:50 2.3	20:09 0.5
●	S	15	2:10 1.9	7:52 0.4	14:18 2.4	20:37 0.4
	M	16	2:39 1.9	8:20 0.4	14:47 2.5	21:05 0.4
	Tu	17	3:10 1.9	8:50 0.4	15:16 2.4	21:35 0.4
N	W	18	3:41 1.9	9:21 0.4	15:46 2.4	22:04 0.5
	Th	19	4:13 1.8	9:53 0.5	16:17 2.3	22:35 0.5
	F	20	4:47 1.8	10:30 0.6	16:50 2.1	23:11 0.6
	S	21	5:25 1.7	11:15 0.8	17:30 1.9	23:54 0.7
☽	S	22	6:20 1.6	12:08 1.0	18:20 1.7	. . . . . .
P	M	23	0:49 0.8	7:41 1.6	13:35 1.2	19:47 1.5
E	Tu	24	2:14 0.9	9:35 1.6	16:21 1.2	21:45 1.4
	W	25	3:54 0.9	11:14 1.8	17:59 1.0	23:22 1.5
	Th	26	5:11 0.7	12:12 2.0	18:49 0.9	. . . . . .
	F	27	0:22 1.6	6:06 0.6	12:56 2.2	19:27 0.7
	S	28	1:10 1.7	6:52 0.5	13:35 2.4	20:02 0.6
○	S	29	1:50 1.8	7:31 0.4	14:09 2.5	20:34 0.5
	M	30	2:26 1.8	8:07 0.4	14:40 2.5	21:02 0.5
S	Tu	31	3:00 1.8	8:40 0.4	15:09 2.4	21:30 0.5

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	3:34 1.8	9:10 0.5	15:37 2.3	21:55 0.5
	Th	2	4:08 1.8	9:40 0.6	16:01 2.2	22:20 0.6
	F	3	4:41 1.7	10:09 0.7	16:30 2.1	22:50 0.6
	S	4	5:11 1.6	10:43 0.8	17:00 2.0	23:25 0.7
A	S	5	5:52 1.6	11:21 1.0	17:35 1.8	. . . . . .
☾	M	6	0:06 0.8	6:41 1.5	12:11 1.1	18:24 1.6
E	Tu	7	0:58 0.8	8:00 1.5	13:32 1.2	19:35 1.5
	W	8	2:10 0.9	9:37 1.6	16:01 1.3	21:27 1.4
	Th	9	3:46 0.9	11:07 1.7	17:52 1.1	23:19 1.4
	F	10	5:05 0.8	12:08 1.9	18:44 0.9	. . . . . .
	S	11	0:24 1.5	6:01 0.7	12:47 2.1	19:21 0.7
	S	12	1:11 1.6	6:46 0.6	13:26 2.3	19:55 0.6
	M	13	1:50 1.7	7:25 0.5	14:00 2.4	20:27 0.5
● N	Tu	14	2:26 1.8	8:02 0.4	14:35 2.4	20:58 0.5
	W	15	3:02 1.8	8:38 0.4	15:08 2.4	21:28 0.4
	Th	16	3:39 1.9	9:15 0.5	15:30 2.4	22:00 0.4
P	F	17	4:16 1.9	9:52 0.6	16:11 2.3	22:31 0.4
	S	18	4:54 1.9	10:33 0.7	16:49 2.1	23:09 0.5
	S	19	5:35 1.8	11:16 0.8	17:28 1.9	23:51 0.6
☽	M	20	6:24 1.8	12:07 1.0	18:15 1.7	. . . . . .
E	Tu	21	0:40 0.6	7:26 1.8	13:16 1.2	19:08 1.6
	W	22	1:35 0.7	8:48 1.8	15:10 1.3	20:24 1.4
	Th	23	2:49 0.7	10:24 1.8	17:29 1.2	22:15 1.3
	F	24	4:14 0.8	11:40 2.0	18:35 1.0	23:51 1.4
	S	25	5:29 0.7	12:35 2.2	19:19 0.8	. . . . . .
	S	26	0:52 1.5	6:27 0.6	13:19 2.3	19:56 0.7
S	M	27	1:41 1.6	7:14 0.6	13:56 2.4	20:28 0.6
○	Tu	28	2:21 1.7	7:55 0.5	14:26 2.4	20:55 0.5
	W	29	2:56 1.8	8:28 0.5	14:57 2.4	21:19 0.5
	Th	30	3:30 1.8	8:59 0.6	15:22 2.3	21:43 0.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 1.0 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Colombo Mean Local Civil, for the meridian 79° 50′ E., 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	4:06 1.8	9:32 0.6	15:52 2.3	22:11 0.5
	S	2	4:39 1.8	10:04 0.6	16:19 2.2	22:37 0.5
A	S	3	5:05 1.8	10:35 0.7	16:49 2.1	23:08 0.6
	M	4	5:33 1.7	11:10 0.8	17:19 2.0	23:44 0.6
E	Tu	5	6:09 1.7	11:47 0.9	17:49 1.8	. . . . . .
☾	W	6	0:19 0.7	6:49 1.7	12:36 1.0	18:25 1.7
	Th	7	1:02 0.8	7:46 1.6	13:48 1.2	19:20 1.5
	F	8	2:02 0.9	9:18 1.6	15:55 1.3	21:03 1.4
	S	9	3:29 0.9	11:00 1.7	18:14 1.2	23:34 1.4
	S	10	5:05 0.8	12:16 1.9	19:08 0.9	. . . . . .
	M	11	0:55 1.5	6:16 0.7	13:09 2.1	19:47 0.8
N	Tu	12	1:43 1.6	7:12 0.6	13:52 2.3	20:21 0.6
●	W	13	2:24 1.8	7:57 0.5	14:28 2.4	20:51 0.5
	Th	14	3:00 1.9	8:38 0.4	15:03 2.4	21:21 0.4
P	F	15	3:38 2.0	9:17 0.4	15:36 2.3	21:52 0.4
	S	16	4:13 2.1	9:54 0.4	16:08 2.3	22:25 0.4
	S	17	4:47 2.1	10:33 0.5	16:45 2.2	23:00 0.4
E	M	18	5:24 2.0	11:11 0.6	17:20 2.0	23:34 0.5
	Tu	19	6:04 2.0	11:52 0.8	17:51 1.9	. . . . . .
☽	W	20	0:11 0.6	6:53 1.9	12:41 1.0	18:27 1.7
	Th	21	0:53 0.6	7:54 1.8	13:52 1.2	19:15 1.5
	F	22	1:47 0.8	9:19 1.7	16:44 1.3	20:49 1.4
	S	23	3:10 0.9	11:06 1.8	18:32 1.2	23:34 1.4
	S	24	4:58 0.9	12:16 1.9	19:18 1.0	. . . . . .
S	M	25	0:52 1.5	6:17 0.8	13:06 2.0	19:52 0.8
	Tu	26	1:43 1.6	7:12 0.7	13:48 2.2	20:21 0.6
○	W	27	2:23 1.8	7:54 0.6	14:20 2.2	20:46 0.6
	Th	28	2:55 1.9	8:28 0.5	14:48 2.2	21:10 0.5
	F	29	3:24 1.9	8:56 0.5	15:12 2.3	21:31 0.5
	S	30	3:52 2.0	9:24 0.5	15:38 2.2	21:54 0.4
A	S	31	4:16 2.0	9:50 0.6	16:03 2.2	22:20 0.4

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	4:39 2.0	10:19 0.6	16:29 2.1	22:46 0.5
	Tu	2	5:04 2.0	10:47 0.6	16:54 2.0	23:11 0.5
	W	3	5:30 2.0	11:21 0.8	17:16 1.8	23:39 0.6
☾	Th	4	6:05 1.9	12:00 0.9	17:48 1.7	. . . . . .
	F	5	0:12 0.7	6:49 1.8	12:48 1.0	18:11 1.5
	S	6	0:59 0.8	7:55 1.7	14:13 1.2	19:12 1.3
	S	7	2:12 1.0	9:51 1.6	17:23 1.2	22:24 1.3
N	M	8	4:18 1.0	11:49 1.8	18:50 1.0	. . . . . .
	Tu	9	0:42 1.5	6:02 0.9	12:52 2.0	19:27 0.8
	W	10	1:32 1.7	7:05 0.7	13:37 2.1	20:00 0.6
●	Th	11	2:11 1.9	7:52 0.5	14:15 2.2	20:32 0.5
P	F	12	2:48 2.1	8:32 0.4	14:48 2.3	21:03 0.3
	S	13	3:19 2.2	9:10 0.4	15:22 2.3	21:35 0.3
E	S	14	3:51 2.3	9:45 0.4	15:57 2.2	22:04 0.3
	M	15	4:25 2.3	10:20 0.4	16:29 2.1	22:35 0.3
	Tu	16	5:00 2.2	10:54 0.6	16:58 2.0	23:05 0.4
	W	17	5:35 2.1	11:30 0.8	17:25 1.8	23:39 0.5
☽	Th	18	6:16 2.0	12:10 0.9	17:55 1.6	. . . . . .
	F	19	0:15 0.7	7:07 1.8	13:05 1.1	18:34 1.5
	S	20	1:00 0.9	8:20 1.7	14:54 1.3	19:58 1.4
S	S	21	2:23 1.0	10:24 1.6	18:28 1.1	23:45 1.3
	M	22	4:51 1.1	11:59 1.7	19:06 0.9	. . . . . .
	Tu	23	0:55 1.5	6:24 0.9	12:52 1.9	19:35 0.8
	W	24	1:36 1.7	7:13 0.8	13:31 2.0	19:58 0.6
	Th	25	2:10 1.9	7:48 0.6	14:02 2.1	20:21 0.5
○	F	26	2:39 2.0	8:19 0.6	14:30 2.2	20:45 0.4
A	S	27	3:02 2.1	8:45 0.5	14:55 2.2	21:08 0.3
E	S	28	3:25 2.2	9:10 0.4	15:21 2.2	21:30 0.3
	M	29	3:46 2.2	9:34 0.4	15:45 2.1	21:52 0.4
	Tu	30	4:07 2.2	10:00 0.5	16:08 2.0	22:15 0.4
	W	31	4:30 2.2	10:26 0.6	16:28 1.9	22:38 0.5

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	4:55 2.1	10:59 0.6	16:49 1.8	23:04 0.6
	F	2	5:26 2.1	11:31 0.8	17:10 1.7	23:35 0.7
☾	S	3	6:05 1.9	12:13 0.9	17:38 1.5	. . . . . .
	S	4	0:14 0.8	7:00 1.8	13:18 1.1	18:25 1.4
N	M	5	1:18 1.0	8:37 1.6	15:48 1.2	22:38 1.3
	Tu	6	3:51 1.1	11:17 1.6	18:17 1.0	. . . . . .
	W	7	0:28 1.5	6:02 1.0	12:33 1.8	18:55 0.8
	Th	8	1:11 1.8	7:01 0.8	13:16 2.0	19:30 0.6
	F	9	1:45 2.0	7:44 0.6	13:55 2.1	20:04 0.4
P ●	S	10	2:19 2.2	8:21 0.4	14:33 2.2	20:34 0.3
E	S	11	2:52 2.4	8:56 0.3	15:07 2.2	21:04 0.2
	M	12	3:25 2.5	9:29 0.4	15:36 2.1	21:35 0.2
	Tu	13	3:59 2.5	10:00 0.4	16:05 2.0	22:04 0.2
	W	14	4:31 2.4	10:33 0.6	16:32 1.9	22:35 0.4
	Th	15	5:04 2.2	11:06 0.7	17:01 1.8	23:06 0.5
☽	F	16	5:37 2.1	11:41 0.9	17:29 1.6	23:38 0.7
S	S	17	6:20 1.9	12:22 1.0	18:00 1.4	. . . . . .
	S	18	0:20 1.0	7:18 1.7	13:35 1.2	19:40 1.3
	M	19	1:36 1.2	9:13 1.6	17:55 1.1	23:50 1.4
	Tu	20	5:07 1.2	11:30 1.6	18:36 0.9	. . . . . .
	W	21	0:44 1.6	6:26 1.0	12:30 1.7	19:04 0.8
	Th	22	1:18 1.8	7:06 0.9	13:07 1.9	19:26 0.6
A	F	23	1:43 2.0	7:36 0.7	13:39 2.0	19:48 0.5
○	S	24	2:07 2.1	8:02 0.5	14:10 2.1	20:14 0.4
E	S	25	2:29 2.2	8:27 0.5	14:40 2.1	20:35 0.3
	M	26	2:52 2.3	8:51 0.4	15:02 2.1	20:59 0.3
	Tu	27	3:15 2.3	9:16 0.4	15:24 2.0	21:21 0.3
	W	28	3:37 2.4	9:41 0.5	15:46 2.0	21:45 0.3
	Th	29	4:00 2.3	10:09 0.5	16:07 1.9	22:08 0.4
	F	30	4:28 2.3	10:38 0.6	16:28 1.8	22:35 0.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 1.0 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Colombo Mean Local Civil, for the meridian 79° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar., ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	4:57	11:11	16:54	23:06	
			2.1	0.8	1.7	0.6	
N ☾	S	2	5:32	11:52	17:27	23:45	
			2.0	0.9	1.6	0.8	
	M	3	6:20	12:50	18:25	. . .	
			1.8	1.1	1.4	. . .	
	Tu	4	0:52	7:45	14:39	21:53	
			1.1	1.6	1.2	1.3	
	W	5	3:49	10:22	17:13	23:51	
			1.2	1.5	1.0	1.5	
	Th	6	5:55	12:02	18:11	. . .	
			1.0	1.7	0.9	. . .	
	F	7	0:42	6:51	12:57	18:56	
			1.8	0.8	1.9	0.6	
P E	S	8	1:20	7:31	13:37	19:30	
			2.1	0.6	2.0	0.4	
●	S	9	1:56	8:08	14:11	20:03	
			2.3	0.4	2.1	0.3	
	M	10	2:29	8:40	14:44	20:35	
			2.4	0.4	2.1	0.2	
	Tu	11	3:01	9:11	15:14	21:06	
			2.5	0.4	2.1	0.2	
	W	12	3:33	9:43	15:44	21:37	
			2.5	0.5	2.0	0.3	
	Th	13	4:05	10:14	16:13	22:07	
			2.4	0.6	1.9	0.4	
S	F	14	4:34	10:46	16:43	22:36	
			2.2	0.7	1.8	0.6	
	S	15	5:06	11:15	17:10	23:08	
			2.1	0.8	1.6	0.8	
☽	S	16	5:39	11:54	17:49	23:45	
			1.9	0.9	1.4	1.0	
	M	17	6:23	12:49	19:31	. . .	
			1.7	1.1	1.3	. . .	
	Tu	18	0:48	7:48	15:02	23:09	
			1.2	1.5	1.2	1.4	
	W	19	4:45	10:19	17:42	. . .	
			1.3	1.5	1.0	. . .	
A	Th	20	0:11	6:14	11:53	18:17	
			1.6	1.1	1.6	0.8	
	F	21	0:45	6:47	12:39	18:44	
			1.8	0.9	1.8	0.7	
E	S	22	1:12	7:15	13:15	19:13	
			2.0	0.7	1.9	0.6	
	S	23	1:37	7:43	13:48	19:40	
			2.1	0.6	2.0	0.4	
○	M	24	2:02	8:10	14:15	20:05	
			2.2	0.5	2.0	0.4	
	Tu	25	2:26	8:35	14:41	20:29	
			2.3	0.4	2.0	0.3	
	W	26	2:50	9:03	15:07	20:54	
			2.4	0.4	2.0	0.3	
	Th	27	3:14	9:31	15:32	21:19	
			2.4	0.4	1.9	0.4	
	F	28	3:41	9:58	15:56	21:46	
			2.3	0.5	1.8	0.4	
N	S	29	4:09	10:26	16:23	22:17	
			2.3	0.6	1.8	0.6	
	S	30	4:40	10:59	16:54	22:51	
			2.1	0.7	1.7	0.7	
	M	31	5:14	11:40	17:36	23:40	
			2.0	0.8	1.6	0.9	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
☾	Tu	1	5:59	12:29	18:50	. . .	
			1.8	0.9	1.5	. . .	
	W	2	0:54	7:15	13:51	21:09	
			1.1	1.5	1.0	1.5	
	Th	3	3:33	9:47	15:57	23:15	
			1.2	1.5	1.0	1.7	
	F	4	5:44	11:34	17:28	. . .	
			1.0	1.6	0.8	. . .	
E P	S	5	0:14	6:39	12:28	18:16	
			1.9	0.8	1.7	0.6	
	S	6	0:55	7:18	13:10	18:56	
			2.2	0.6	1.8	0.5	
●	M	7	1:34	7:54	13:48	19:34	
			2.4	0.5	1.9	0.3	
	Tu	8	2:08	8:26	14:24	20:09	
			2.5	0.4	2.0	0.3	
	W	9	2:40	8:57	14:55	20:41	
			2.5	0.4	2.0	0.3	
	Th	10	3:11	9:29	15:29	21:13	
			2.5	0.5	1.9	0.4	
S	F	11	3:41	9:59	16:02	21:45	
			2.4	0.5	1.9	0.5	
	S	12	4:09	10:26	16:35	22:15	
			2.2	0.6	1.7	0.6	
	S	13	4:38	10:55	17:09	22:46	
			2.1	0.7	1.6	0.8	
	M	14	5:10	11:30	17:51	23:27	
			1.9	0.8	1.5	1.0	
☽	Tu	15	5:47	12:19	19:11	. . .	
			1.7	0.9	1.4	. . .	
	W	16	0:24	6:45	13:29	21:21	
			1.2	1.5	1.0	1.4	
A	Th	17	2:49	8:54	15:33	23:13	
			1.3	1.4	1.0	1.6	
E	F	18	5:31	10:52	17:01	. . .	
			1.2	1.5	0.9	. . .	
	S	19	0:01	6:20	11:58	17:52	
			1.7	1.0	1.6	0.8	
	S	20	0:36	6:54	12:44	18:31	
			1.9	0.8	1.7	0.7	
	M	21	1:06	7:26	13:22	19:04	
			2.1	0.6	1.8	0.5	
	Tu	22	1:37	7:56	13:54	19:35	
			2.3	0.5	1.8	0.4	
○	W	23	2:05	8:25	14:25	20:05	
			2.4	0.5	1.9	0.4	
	Th	24	2:34	8:51	14:55	20:34	
			2.4	0.5	1.9	0.4	
N	F	25	3:00	9:21	15:25	21:05	
			2.4	0.5	1.9	0.4	
	S	26	3:29	9:49	15:57	21:37	
			2.4	0.5	1.9	0.5	
	S	27	4:00	10:20	16:29	22:12	
			2.3	0.5	1.8	0.6	
	M	28	4:31	10:54	17:06	22:54	
			2.1	0.6	1.8	0.7	
	Tu	29	5:07	11:31	17:52	23:43	
			1.9	0.7	1.7	0.9	
☾	W	30	5:49	12:19	18:59	. . .	
			1.7	0.8	1.7	. . .	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	0:51	6:54	13:30	20:35	
			1.1	1.5	0.8	1.6	
E	F	2	2:54	8:35	15:00	22:30	
			1.2	1.4	0.9	1.8	
P	S	3	5:21	10:36	16:30	23:44	
			1.1	1.4	0.8	2.0	
	S	4	6:25	11:54	17:35	. . .	
			1.0	1.5	0.7	. . .	
	M	5	0:34	7:09	12:47	18:26	
			2.2	0.8	1.6	0.5	
	Tu	6	1:15	7:45	13:31	19:11	
			2.4	0.6	1.7	0.4	
●	W	7	1:52	8:19	14:10	19:50	
			2.5	0.5	1.8	0.4	
S	Th	8	2:26	8:49	14:46	20:25	
			2.5	0.5	1.8	0.4	
	F	9	2:56	9:19	15:21	20:59	
			2.5	0.5	1.9	0.5	
	S	10	3:25	9:45	15:56	21:29	
			2.4	0.5	1.8	0.5	
	S	11	3:51	10:12	16:31	22:00	
			2.3	0.5	1.8	0.7	
	M	12	4:19	10:39	17:04	22:35	
			2.2	0.5	1.7	0.8	
	Tu	13	4:49	11:13	17:40	23:10	
			2.0	0.6	1.6	1.0	
	W	14	5:21	11:49	18:26	23:54	
			1.9	0.7	1.5	1.1	
☽ A	Th	15	6:01	12:36	19:32	. . .	
			1.7	0.8	1.5	. . .	
E	F	16	0:50	6:54	13:36	21:04	
			1.3	1.5	0.9	1.5	
	S	17	3:05	8:30	15:05	22:51	
			1.3	1.4	0.9	1.7	
	S	18	5:45	10:50	16:41	23:53	
			1.2	1.4	0.9	1.9	
	M	19	6:39	12:10	17:45	. . .	
			1.0	1.4	0.8	. . .	
	Tu	20	0:38	7:15	13:00	18:31	
			2.1	0.8	1.5	0.7	
	W	21	1:16	7:47	13:40	19:13	
			2.2	0.7	1.6	0.5	
○	Th	22	1:50	8:18	14:15	19:50	
			2.4	0.6	1.8	0.5	
N	F	23	2:22	8:46	14:50	20:24	
			2.4	0.5	1.8	0.4	
	S	24	2:54	9:15	15:23	21:00	
			2.3	0.4	1.9	0.3	
	S	25	3:25	9:44	15:59	21:36	
			2.2	0.3	1.8	0.3	
	M	26	3:55	10:15	16:31	22:15	
			2.1	0.2	1.8	0.4	
P	Tu	27	4:27	10:46	17:08	22:54	
			1.9	0.2	1.7	0.5	
	W	28	5:04	11:25	17:49	23:38	
			1.7	0.2	1.6	0.6	
E ☾	Th	29	5:42	12:08	18:40	. . .	
			1.5	0.3	1.5	. . .	
	F	30	0:32	6:24	12:56	19:52	
			0.8	1.3	0.4	1.5	
	S	31	1:51	7:20	13:58	21:26	
			1.0	1.1	0.5	1.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 1.0 foot below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Colombo Mean Local Civil, for the meridian 79° 50′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:22 3.6	9:16 9.3	15:23 —0.5	22:18 12.3
N	S	2	4:14 2.5	10:11 10.0	16:10 —1.4	23:02 13.5
☽	S	3	5:00 1.7	11:00 10.5	16:55 —1.8	23:45 14.1
P	M	4	5:46 1.1	11:48 11.0	17:42 —1.9	. . . . . .
	Tu	5	0:28 14.4	6:31 0.7	12:35 11.1	18:27 —1.6
	W	6	1:11 14.2	7:15 0.7	13:22 11.1	19:13 —0.8
	Th	7	1:54 13.6	8:00 0.7	14:11 10.8	20:00 0.3
E	F	8	2:37 12.8	8:49 0.8	15:06 10.2	20:51 1.6
	S	9	3:23 11.7	9:43 1.1	16:02 9.4	21:48 2.9
☾	S	10	4:13 10.5	10:45 1.5	17:12 8.7	23:03 4.3
	M	11	5:08 9.5	11:54 1.7	18:32 8.6	. . . . . .
	Tu	12	0:37 4.9	6:14 8.5	13:02 1.7	20:00 9.0
	W	13	2:05 5.0	7:28 8.2	14:05 1.4	21:08 9.8
	Th	14	3:12 4.7	8:39 8.3	14:57 1.1	21:59 10.6
S	F	15	4:04 4.1	9:38 8.7	15:42 0.6	22:40 11.2
	S	16	4:46 3.7	10:26 9.0	16:20 0.4	23:12 11.8
●	S	17	5:22 3.2	11:05 9.1	16:55 0.3	23:48 12.0
	M	18	5:49 2.9	11:42 9.3	17:25 0.4	. . . . . .
	Tu	19	0:16 12.1	6:15 2.6	12:15 9.3	17:55 0.6
A	W	20	0:43 11.9	6:41 2.4	12:47 9.3	18:25 0.9
	Th	21	1:10 11.7	7:08 2.1	13:18 9.2	18:55 1.3
	F	22	1:38 11.4	7:34 1.9	13:50 9.2	19:27 1.8
E	S	23	2:07 11.0	8:06 1.7	14:27 9.0	20:00 2.4
	S	24	2:37 10.5	8:45 1.7	15:10 8.7	20:40 3.2
	M	25	3:12 10.0	9:30 1.8	16:00 8.5	21:32 4.1
☽	Tu	26	3:58 9.4	10:23 1.9	17:00 8.3	22:43 4.9
	W	27	4:47 8.6	11:32 1.9	18:24 8.5	. . . . . .
	Th	28	0:21 5.2	6:04 8.3	12:50 1.5	19:54 9.4
	F	29	1:58 4.8	7:37 8.3	14:02 0.7	21:05 10.8
N	S	30	3:04 3.8	8:55 9.0	15:03 0.1	22:00 12.1
	S	31	4:00 2.6	9:59 9.9	15:55 —1.0	22:46 13.3

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	4:49 1.5	10:51 10.8	16:46 —1.6	23:30 14.1
P	Tu	2	5:33 0.5	11:40 11.5	17:32 —1.6	. . . . . .
	W	3	0:12 14.3	6:14 —0.2	12:27 12.0	18:17 —1.5
	Th	4	0:53 14.2	6:57 —0.5	13:12 12.0	19:00 —0.8
E	F	5	1:34 13.7	7:38 —0.5	13:59 11.8	19:46 0.1
	S	6	2:16 12.9	8:22 —0.1	14:46 11.1	20:31 1.5
	S	7	2:57 11.8	9:10 0.3	15:38 10.1	21:24 3.0
☾	M	8	3:40 10.5	10:02 1.0	16:40 9.2	22:26 4.3
	Tu	9	4:29 9.2	11:08 1.7	17:49 8.5	23:56 5.4
	W	10	5:30 8.2	12:18 2.2	19:21 8.6	. . . . . .
S	Th	11	1:42 5.6	6:48 7.5	13:35 2.3	20:46 9.1
	F	12	3:02 5.2	8:18 7.5	14:37 2.1	21:40 9.7
	S	13	3:55 4.5	9:25 7.9	15:24 1.8	22:20 10.4
	S	14	4:34 3.8	10:15 8.5	16:04 1.4	22:54 11.0
	M	15	5:04 3.2	10:54 8.9	16:38 1.4	23:28 11.5
A ●	Tu	16	5:27 2.5	11:27 9.4	17:08 0.9	23:50 11.6
	W	17	5:50 2.0	11:57 9.8	17:38 0.8	. . . . . .
	Th	18	0:15 11.7	6:12 1.7	12:27 10.0	18:07 1.0
E	F	19	0:42 11.7	6:36 1.1	12:59 10.2	18:37 1.1
	S	20	1:10 11.6	7:06 0.8	13:30 10.2	19:06 1.5
	S	21	1:39 11.2	7:37 0.7	14:05 10.1	19:42 2.0
	M	22	2:10 10.7	8:13 0.8	14:45 9.9	20:20 2.8
	Tu	23	2:41 10.1	8:54 1.0	15:30 9.4	21:09 3.7
☽	W	24	3:22 9.5	9:43 1.3	16:27 9.1	22:11 4.6
	Th	25	4:15 8.7	10:50 1.7	17:44 9.0	23:47 5.2
N	F	26	5:29 8.1	12:12 1.8	19:15 9.3	. . . . . .
	S	27	1:32 4.8	7:12 8.0	13:37 1.4	20:37 10.3
	S	28	2:45 3.6	8:45 8.8	14:46 0.6	21:34 11.5
	M	29	3:42 2.3	9:46 10.0	15:42 —0.2	22:25 12.7

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	4:30 0.9	10:40 11.2	16:32 —0.9	23:09 13.3
○	W	2	5:12 —0.2	11:27 12.1	17:20 —1.2	23:50 13.7
E	Th	3	5:52 —1.0	12:12 12.7	18:05 —1.1	. . . . . .
	F	4	0:30 13.7	6:32 —1.3	12:57 12.9	18:49 —0.6
	S	5	1:10 13.4	7:13 —1.2	13:42 12.5	19:30 0.4
	S	6	1:52 12.5	7:53 —0.8	14:27 11.8	20:12 1.8
	M	7	2:31 11.4	8:37 0.0	15:15 10.7	21:00 3.2
	Tu	8	3:10 10.2	9:24 1.0	16:07 9.6	21:56 4.4
☾	W	9	3:55 8.8	10:20 2.0	17:06 8.7	23:18 5.5
S	Th	10	4:50 7.7	11:28 2.9	18:28 8.2	. . . . . .
	F	11	1:18 5.5	6:14 7.1	12:54 3.2	20:02 8.5
	S	12	2:41 5.0	8:00 7.1	14:06 3.2	21:04 9.1
	S	13	3:30 4.4	9:11 7.5	15:00 2.8	21:47 9.7
A	M	14	4:04 3.5	9:57 8.3	15:40 2.4	22:21 10.2
	Tu	15	4:28 2.9	10:34 9.1	16:14 1.9	22:50 10.5
	W	16	4:50 2.1	11:03 9.8	16:47 1.5	23:16 10.9
● E	Th	17	5:13 1.5	11:34 10.3	17:17 1.2	23:44 11.2
	F	18	5:37 0.9	12:05 10.8	17:47 1.0	. . . . . .
	S	19	0:13 11.3	6:07 0.3	12:36 11.2	18:18 1.2
	S	20	0:44 11.3	6:37 0.0	13:10 11.3	18:52 1.5
	M	21	1:13 10.9	7:10 0.0	13:45 11.2	19:27 2.0
	Tu	22	1:45 10.4	7:47 0.2	14:26 10.9	20:08 2.8
	W	23	2:20 9.9	8:27 0.6	15:11 10.4	20:55 3.6
N	Th	24	3:02 9.2	9:15 1.2	16:07 9.8	21:55 4.4
☽	F	25	4:00 8.5	10:21 1.9	17:16 9.4	23:24 4.7
	S	26	5:20 7.9	11:47 2.3	18:41 9.4	. . . . . .
	S	27	1:07 4.1	7:00 8.0	13:17 2.1	20:02 9.1
	M	28	2:23 3.0	8:29 9.0	14:31 1.5	21:04 10.9
	Tu	29	3:16 1.7	9:30 10.3	15:27 0.7	21:56 11.7
P	W	30	4:02 0.3	10:21 11.5	16:19 0.0	22:41 12.3
E ○	Th	31	4:44 —0.8	11:10 12.5	17:05 —0.3	23:24 12.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 6.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Bombay Mean Local Civil, for the meridian 72° 50′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	5:25	11:54	17:48	. . .
			—1.4	13.1	—0.2	. . .
	S	2	0:05	6:05	12:37	18:32
			12.9	—1.7	13.2	0.3
	S	3	0:46	6:46	13:21	19:12
			12.4	—1.4	12.9	1.1
	M	4	1:26	7:25	14:06	19:56
			11.7	—0.8	12.1	2.2
	Tu	5	2:05	8:05	14:49	20:40
			10.6	0.1	11.1	3.5
S	W	6	2:43	8:46	15:37	21:31
			9.6	1.2	10.1	4.5
☾	Th	7	3:25	9:33	16:26	22:32
			8.3	2.3	9.1	5.1
	F	8	4:22	10:30	17:30	. . .
			7.4	3.3	8.4	. . .
	S	9	0:14	5:41	11:52	18:50
			5.2	6.7	4.0	8.2
	S	10	1:40	7:28	13:18	20:00
			4.8	6.8	4.1	8.4
A	M	11	2:32	8:40	14:22	20:52
			4.1	7.5	3.8	8.8
	Tu	12	3:10	9:25	15:08	21:30
			3.4	8.4	3.3	9.3
•	W	13	3:39	9:59	15:44	22:03
			2.5	9.3	2.6	9.8
E	Th	14	4:05	10:32	16:20	22:35
			1.6	10.2	2.0	10.3
	F	15	4:33	11:05	16:53	23:10
			0.8	11.0	1.6	10.7
●	S	16	5:08	11:39	17:26	23:42
			0.2	11.6	1.5	10.8
	S	17	5:37	12:14	18:02	. . .
			—0.3	12.0	1.5	. . .
	M	18	0:17	6:10	12:51	18:40
			10.8	—0.6	12.2	1.7
	Tu	19	0:52	6:48	13:31	19:20
			10.6	—0.5	12.1	2.2
	W	20	1:28	7:27	14:13	20:04
			10.2	0.7	11.7	2.7
N	Th	21	2:10	8:10	15:00	20:52
			9.7	0.5	11.2	3.2
	F	22	3:00	9:00	15:54	21:55
			9.0	1.3	10.5	3.7
☽	S	23	3:59	10:03	16:56	23:17
			8.4	2.2	10.1	3.7
	S	24	5:20	11:30	18:08	. . .
			8.2	2.8	9.8	. . .
	M	25	0:42	6:55	13:00	19:22
			3.2	8.6	2.8	9.8
P	Tu	26	1:47	8:07	14:13	20:30
			2.2	9.5	2.3	10.3
E	W	27	2:44	9:11	15:11	21:24
			1.1	10.6	1.7	11.0
	Th	28	3:32	10:05	16:02	22:12
			0.0	11.8	1.2	11.3
	F	29	4:16	10:52	16:49	23:00
			—0.7	12.6	1.0	11.7
○	S	30	4:56	11:37	17:34	23:40
			—1.3	12.1	1.1	11.6

MAY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	5:37	12:20	18:15	. . .
			—1.4	13.1	1.4	. . .
	M	2	0:20	6:17	13:02	18:57
			11.2	—1.1	12.8	2.0
S	Tu	3	1:02	6:54	13:44	19:40
			10.7	—0.4	12.2	2.7
	W	4	1:40	7:33	14:25	20:22
			9.9	0.4	11.3	3.4
	Th	5	2:22	8:12	15:07	21:07
			8.9	1.5	10.4	4.1
	F	6	3:05	8:52	15:52	22:03
			8.0	2.6	9.6	4.6
☾	S	7	3:54	9:40	16:40	23:17
			7.3	3.6	8.9	4.7
A	S	8	5:00	10:47	17:35	. . .
			7.0	4.4	8.4	. . .
	M	9	0:30	6:31	12:14	18:35
			4.4	7.0	4.7	8.1
	Tu	10	1:22	7:46	13:27	19:36
			3.8	7.6	4.5	8.3
E	W	11	2:04	8:32	14:18	20:27
			3.1	8.3	3.9	8.8
	Th	12	2:41	9:18	15:05	21:14
			2.3	9.4	3.8	9.3
	F	13	3:20	10:00	15:45	21:55
			1.3	10.4	2.8	9.7
	S	14	3:55	10:40	16:27	22:37
			0.4	11.3	2.4	10.0
●	S	15	4:32	11:18	17:07	23:14
			—0.3	12.2	2.0	10.3
	M	16	5:10	11:57	17:48	23:55
			—0.8	12.7	1.9	10.3
	Tu	17	5:48	12:37	18:30	. . .
			—1.0	12.9	2.0	. . .
N	W	18	0:35	6:28	13:20	19:13
			10.2	—0.8	12.8	2.0
	Th	19	1:20	7:10	14:04	20:02
			10.0	—0.3	12.4	2.3
	F	20	2:05	7:57	14:50	20:52
			9.5	0.5	11.8	2.5
	S	21	2:59	8:50	15:40	21.54
			9.1	1.4	11.1	2.8
☽	S	22	4:02	9:55	16:36	23:07
			8.8	2.4	10.5	2.6
P	M	23	5:20	11:16	17:39	. . .
			8.6	3.2	9.9	. . .
E	Tu	24	0:18	6:41	12:42	18:50
			2.1	9.0	3.3	9.7
	W	25	1:21	7:50	13:53	19:52
			1.5	9.6	3.1	9.8
	Th	26	2:17	8:57	14:53	20:52
			0.7	10.6	2.8	10.0
	F	27	3:05	9:51	15:46	21:45
			—0.1	11.5	2.5	10.3
	S	28	3:50	10:39	16:35	22:33
			—0.6	12.2	2.4	10.4
○	S	29	4:33	11:22	17:18	23:18
			—0.9	12.7	2.4	10.4
	M	30	5:14	12:04	18:02	23:57
			—0.9	12.8	2.4	10.1
S	Tu	31	5:50	12:43	18:43	. . .
			—0.6	12.7	2.6	. . .

JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	0:40	6:28	13:22	19:21
			9.6	0.0	12.1	3.0
	Th	2	1:20	7:06	14:00	20:01
			9.1	0.8	11.5	3.3
	F	3	2:00	7:40	14:37	20:40
			8.6	1.7	10.7	3.7
	S	4	2:39	8:18	15:14	21:26
			8.0	2.7	10.0	3.8
A	S	5	3:25	9:00	15:54	22:17
			7.6	3.6	9.3	3.8
☾	M	6	4:22	9:52	16:37	23:14
			7.2	4.3	8.8	3.7
E	Tu	7	5:27	11:00	17:27	. . .
			7.1	4.8	8.5	. . .
	W	8	0:12	6:40	12:16	18:23
			3.2	7.6	4.8	8.3
	Th	9	1:02	7:36	13:27	19:22
			2.6	8.5	4.6	8.4
	F	10	1:50	8:36	14:22	20:21
			1.9	9.4	4.1	8.6
	S	11	2:39	9:27	15:16	21:15
			1.0	10.4	3.5	9.1
	S	12	3:22	10:14	16:02	22:05
			0.0	11.6	2.9	9.5
	M	13	4:04	10:57	16:48	22:51
			—0.7	12.6	2.3	9.8
●	Tu	14	4:47	11:40	17:35	23:36
N			—1.2	13.2	2.0	10.3
	W	15	5:32	12:23	18:21	. . .
			—1.3	13.5	1.6	. . .
	Th	16	0:23	6:17	13:08	19:06
			10.2	—1.0	13.3	1.5
P	F	17	1:10	7:00	13:50	19:52
			10.1	—0.5	12.9	1.5
	S	18	2:02	7:51	14:36	20:43
			9.9	0.4	12.3	1.6
	S	19	2:55	8:43	15:24	21:42
			9.7	1.5	12.6	1.5
☽	M	20	3:56	9:45	16:17	22:47
			9.3	2.6	10.8	1.6
E	Tu	21	5:08	10:58	17:13	23:50
			9.2	3.4	10.0	1.3
	W	22	6:19	12:18	18:15	. . .
			9.1	3.9	9.4	. . .
	Th	23	0:52	7:30	13:33	19:20
			1.2	9.5	4.2	9.1
	F	24	1:50	8:42	14:38	20:24
			0.8	10.3	3.9	9.1
	S	25	2:42	9:38	15:34	21:20
			0.3	11.1	3.7	9.2
	S	26	3:30	10:26	16:23	22:11
			—0.1	11.8	3.3	9.3
S	M	27	4:12	11:09	17:10	22:57
			—0.3	12.3	3.0	9.4
○	Tu	28	4:52	11:47	17:48	23:40
			—0.3	12.4	2.9	9.4
	W	29	5:31	12:25	18:25	. . .
			—0.1	12.3	2.8	. . .
	Th	30	0:21	6:05	13:00	19:00
			9.2	0.4	12.1	2.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 6.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Bombay Mean Local Civil, for the meridian 72° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator. A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	1:00 8.9	6:38 1.1	13:31 11.6	19:32 2.9	
	S	2	1:36 8.5	7:11 1.8	14:05 11.0	20:05 3.0	
A	S	3	2:15 8.3	7:47 2.6	14:37 10.5	20:40 2.9	
	M	4	2:52 7.9	8:22 3.3	15:12 10.0	21:20 2.9	
E	Tu	5	3:40 7.7	9:06 3.9	15:47 9.4	22:06 2.8	
☾	W	6	4:33 7.6	9:56 4.7	16:30 8.9	23:03 2.6	
	Th	7	5:33 7.8	11:10 5.0	17:20 8.6	. . . . . .	
	F	8	0:02 2.2	6:40 8.3	12:31 5.0	18:22 8.3	
	S	9	1:02 1.6	7:55 9.2	13:47 4.7	19:32 8.4	
	S	10	2:00 0.8	8:48 10.5	14:48 4.0	20:40 8.8	
	M	11	2:54 —0.1	9:50 11.7	15:42 3.1	21:40 9.4	
N	Tu	12	3:42 —0.8	10:37 12.8	16:33 2.3	22:35 10.1	
●	W	13	4:30 —1.3	11:22 13.4	17:20 1.6	23:24 10.5	
	Th	14	5:17 —1.2	12:07 13.9	18:06 1.0	. . . . . .	
P	F	15	0:12 10.8	6:05 —1.2	12:50 13.8	18:50 0.6	
	S	16	1:02 10.8	6:50 —0.7	13:32 13.4	19:36 0.4	
	S	17	1:50 10.8	7:37 0.3	14:16 12.8	20:23 0.5	
E	M	18	2:42 10.5	8:28 1.4	15:03 11.9	21:16 0.6	
	Tu	19	3:37 10.0	9:25 2.6	15:50 10.9	22:16 0.8	
☽	W	20	4:42 9.5	10:32 3.7	16:42 10.0	23:18 1.1	
	Th	21	5:52 9.1	11:53 4.5	17:42 9.0	. . . . . .	
	F	22	0:24 1.2	7:10 9.3	13:20 5.0	18:50 8.5	
	S	23	1:30 1.1	8:27 9.8	14:31 4.7	20:00 8.4	
	S	24	2:25 0.8	9:26 10.6	15:29 4.2	21:05 8.5	
S	M	25	3:15 0.6	10:12 11.2	16:16 3.7	22:00 8.8	
	Tu	26	3:59 0.5	10:52 11.7	16:59 3.2	22:46 9.1	
○	W	27	4:36 0.4	11:29 12.0	17:33 2.8	23:27 9.2	
	Th	28	5:10 0.5	12:00 12.1	18:02 2.7	. . . . . .	
	F	29	0:02 9.2	5:44 0.8	12:32 11.9	18:30 2.4	
	S	30	0:37 9.1	6:15 1.2	13:00 11.5	18:56 2.3	
A	S	31	1:12 9.1	6:45 1.7	13:27 11.2	19:25 2.2	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	1:42 8.9	7:15 2.2	13:59 10.9	19:55 2.0	
	Tu	2	2:18 8.7	7:47 2.8	14:28 10.3	20:30 2.0	
	W	3	3:00 8.4	8:25 3.5	15:00 9.7	21:12 2.0	
☾	Th	4	3:47 8.3	9:14 4.3	15:39 9.2	22:02 2.1	
	F	5	4:42 8.2	10:17 5.0	16:27 8.6	23:07 2.0	
	S	6	5:53 8.5	11:48 5.3	17:34 8.3	. . . . . .	
	S	7	0:20 1.7	7:15 9.1	13:20 5.0	19:00 8.2	
N	M	8	1:32 1.1	8:29 10.8	14:31 4.7	20:19 9.1	
	Tu	9	2:34 0.3	9:29 11.5	15:27 3.0	21:27 9.5	
	W	10	3:27 —0.5	10:16 12.7	16:17 1.8	22:22 10.5	
●	Th	11	4:17 —1.1	11:02 13.6	17:02 0.7	23:13 11.2	
P	F	12	5:07 —1.3	11:45 13.9	17:45 —0.1	. . . . . .	
	S	13	0:00 11.7	5:52 —1.2	12:27 13.9	18:28 —0.5	
E	S	14	0:46 11.9	6:37 —0.6	13:09 13.6	19:11 —0.4	
	M	15	1:35 11.9	7:22 0.2	13:52 12.9	19:55 —0.5	
	Tu	16	2:24 11.3	8:10 1.4	14:37 11.9	20:43 —0.1	
	W	17	3:17 10.5	9:02 2.8	15:20 10.7	21:38 0.6	
☽	Th	18	4:16 9.8	10:05 4.1	16:10 9.5	22:40 1.2	
	F	19	5:20 9.1	11:32 5.2	17:10 8.5	23:54 1.7	
	S	20	6:44 9.1	13:13 5.5	18:27 7.8	. . . . . .	
S	S	21	1:07 1.8	8:09 9.4	14:28 5.1	19:50 7.5	
	M	22	2:12 1.7	9:09 10.1	15:25 4.3	21:00 8.0	
	Tu	23	3:02 1.5	9:53 10.7	16:06 3.6	21:52 8.5	
	W	24	3:44 1.3	10:30 11.3	16:40 2.9	22:35 9.0	
	Th	25	4:20 1.1	11:04 11.6	17:07 2.5	23:10 9.3	
○	F	26	4:52 1.0	11:32 11.7	17:32 2.0	23:43 9.7	
A	S	27	5:23 1.0	12:00 11.7	17:55 1.7	. . . . . .	
E	S	28	0:14 9.8	5:51 1.3	12:25 11.5	18:18 1.3	
	M	29	0:43 9.9	6:20 1.5	12:44 11.3	18:47 1.0	
	Tu	30	1:15 9.8	6:48 1.9	13:22 10.8	19:15 1.0	
	W	31	1:49 9.7	7:22 2.5	13:50 10.4	19:51 1.0	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	2:26 9.4	7:57 3.2	14:22 9.9	20:30 1.3	
	F	2	3:09 9.1	8:42 4.0	14:59 9.1	21:16 1.5	
☾	S	3	4:03 8.8	9:42 4.9	15:50 8.5	22:20 1.9	
	S	4	5:15 8.8	11:12 5.5	17:04 7.9	23:42 2.0	
N	M	5	6:42 9.0	13:02 5.1	18:40 7.9	. . . . . .	
	Tu	6	1:08 1.7	8:02 10.0	14:17 3.9	20:09 8.5	
	W	7	2:19 0.8	9:02 11.2	15:10 2.5	21:16 9.6	
	Th	8	3:15 0.0	9:54 12.3	15:58 1.1	22:11 10.8	
	F	9	4:07 —0.6	10:38 13.0	16:50 —0.2	22:55 11.9	
P ●	S	10	4:52 —1.0	11:20 13.5	17:22 —1.0	23:41 12.5	
E	S	11	5:38 —1.0	12:02 13.8	18:02 —1.5	. . . . . .	
	M	12	0:28 12.8	6:22 —0.6	12:44 13.4	18:42 —1.6	
	Tu	13	1:14 12.5	7:06 0.4	13:25 12.7	19:26 —1.2	
	W	14	2:00 11.9	7:50 1.7	14:07 11.6	20:12 —0.4	
	Th	15	2:50 10.9	8:40 3.0	14:50 10.3	21:00 0.6	
☽	F	16	3:44 10.0	9:40 4.5	15:40 9.0	21:56 1.6	
S	S	17	4:45 9.0	11:05 5.5	16:40 7.9	23:12 2.5	
	S	18	6:05 8.7	12:56 5.6	18:06 7.1	. . . . . .	
	M	19	0:39 2.9	7:33 8.8	14:20 5.1	19:45 7.0	
	Tu	20	1:55 2.7	8:41 9.3	15:10 4.1	20:56 7.6	
	W	21	2:48 2.5	9:25 10.0	15:44 3.4	21:44 8.4	
	Th	22	3:30 2.2	10:02 10.5	16:12 2.7	22:20 9.0	
A	F	23	4:02 1.7	10:30 10.9	16:35 2.1	22:48 9.7	
○	S	24	4:32 1.5	10:57 11.1	16:57 1.5	23:18 10.2	
E	S	25	5:00 1.3	11:22 11.3	17:20 0.9	23:46 10.5	
	M	26	5:30 1.2	11:52 11.3	17:46 0.6	. . . . . .	
	Tu	27	0:17 10.8	5:58 1.3	12:22 11.1	18:14 0.5	
	W	28	0:47 10.8	6:28 1.7	12:50 10.9	18:45 0.2	
	Th	29	1:22 10.6	7:02 2.3	13:20 10.3	19:20 0.4	
	F	30	2:00 10.3	7:40 3.0	13:53 9.7	20:00 0.8	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 6.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Bombay Mean Local Civil, for the meridian 72° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	2:43	8:26	14:36	20:42	
			9.9	3.8	9.0	1.5	
N ☾	S	2	3:37	9:22	15:30	21:44	
			9.3	4.5	8.3	2.1	
	M	3	4:44	10:46	16:48	23:10	
			9.1	5.1	7.8	2.5	
	Tu	4	6:07	12:30	18:32	. . .	
			9.1	4.5	7.9	. . .	
	W	5	0:47	7:27	13:51	20:00	
			2.3	9.6	3.3	8.7	
	Th	6	2:04	8:33	14:48	21:02	
			1.6	10.7	1.8	10.1	
	F	7	3:02	9:25	15:36	21:54	
			0.8	11.5	0.4	11.4	
P E	S	8	3:53	10:11	16:15	22:42	
			0.0	12.3	—0.7	12.6	
●	S	9	4:40	10:55	16:55	23:27	
			—0.5	13.0	—1.7	13.3	
	M	10	5:22	11:37	17:35	. . .	
			—0.5	13.1	—2.0	. . .	
	Tu	11	0:10	6:05	12:18	18:16	
			13.4	0.0	12.8	—1.8	
	W	12	0:54	6:48	13:00	18:57	
			13.1	0.8	12.0	—1.2	
	Th	13	1:38	7:32	13:40	19:38	
			12.4	1.9	11.0	—0.3	
S	F	14	2:25	8:18	14:22	20:22	
			11.3	3.1	9.7	0.8	
	S	15	3:14	9:12	15:11	21:12	
			10.3	4.3	8.6	2.0	
☽	S	16	4:09	10:24	16:11	22:15	
			9.3	5.1	7.5	3.2	
	M	17	5:16	12:16	17:40	23:50	
			8.5	5.1	6.8	3.8	
	Tu	18	6:37	13:42	19:29	. . .	
			8.2	4.6	6.9	. . .	
	W	19	0:19	7:46	14:28	20:37	
			4.4	8.5	4.0	7.6	
A	Th	20	2:22	8:41	15:02	21:20	
			3.6	9.0	3.2	8.6	
	F	21	3:07	9:18	15:30	21:52	
			3.0	9.3	2.5	9.3	
E	S	22	3:40	9:50	15:57	22:23	
			2.5	10.0	1.7	10.1	
	S	23	4:08	10:20	16:19	22:52	
			2.0	10.4	1.1	10.8	
○	M	24	4:38	10:52	16:47	23:24	
			1.7	10.7	0.3	11.3	
	Tu	25	5:08	11:22	17:17	23:55	
			1.5	10.8	—0.2	11.8	
	W	26	5:42	11:55	17:47	. . .	
			1.5	10.7	—0.4	. . .	
	Th	27	0:30	6:15	12:26	18:22	
			11.9	1.7	10.5	—0.4	
	F	28	1:06	6:52	13:00	19:00	
			11.8	2.1	10.2	—0.1	
N	S	29	1:45	7:32	13:40	19:37	
			11.3	2.6	9.6	0.6	
	S	30	2:29	8:17	14:27	20:24	
			10.8	3.1	9.1	1.4	
	M	31	3:21	9:15	15:25	21:21	
			10.2	3.8	8.3	2.3	

NOVEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
☾	Tu	1	4:19	10:33	16:44	22:44	
			9.5	3.8	7.9	3.0	
	W	2	5:30	12:07	18:22	. . .	
			9.2	3.6	8.3	. . .	
	Th	3	0:25	6:47	13:22	19:40	
			3.1	9.3	2.6	9.3	
	F	4	1:47	7:58	14:17	20:47	
			2.6	9.9	1.5	10.5	
E P	S	5	2:47	8:56	15:06	21:40	
			1.6	10.7	0.3	11.8	
	S	6	3:38	9:48	15:50	22:30	
			1.0	11.3	—0.8	12.8	
●	M	7	4:26	10:34	16:32	23:14	
			0.6	11.8	—1.5	13.3	
	Tu	8	5:10	11:16	17:14	23:56	
			0.5	11.9	—1.8	13.7	
	W	9	5:53	11:57	17:53	. . .	
			0.8	11.8	—1.7	. . .	
	Th	10	0:38	6:35	12:38	18:32	
			13.3	1.3	11.3	—1.1	
S	F	11	1:20	7:17	13:18	19:11	
			12.7	2.0	10.5	—0.2	
	S	12	2:02	8:02	14:00	19:52	
			11.8	2.9	9.5	1.0	
	S	13	2:45	8:47	14:46	20:34	
			10.6	3.8	8.5	2.3	
	M	14	3:31	9:45	15:41	21:21	
			9.7	4.4	7.6	3.5	
☽	Tu	15	4:20	11:10	16:52	22:30	
			8.8	4.8	7.1	4.5	
	W	16	5:18	12:35	18:28	. . .	
			8.1	4.6	7.1	. . .	
A	Th	17	0:08	6:23	13:32	19:55	
			4.8	7.8	4.0	7.7	
E	F	18	1:30	7:30	14:10	20:40	
			4.6	8.0	3.4	8.3	
	S	19	2:25	8:21	14:41	21:20	
			4.0	8.5	2.7	9.2	
	S	20	3:03	9:04	15:14	21:54	
			3.5	8.9	1.9	10.2	
	M	21	3:40	9:45	15:46	22:30	
			2.9	9.4	1.0	11.0	
	Tu	22	4:15	10:22	16:19	23:03	
			2.3	9.9	0.2	11.8	
○	W	23	4:51	10:57	16:53	23:39	
			1.9	10.3	—0.4	12.3	
	Th	24	5:29	11:33	17:27	. . .	
			1.7	10.4	—0.8	. . .	
N	F	25	0:16	6:06	12:12	18:05	
			12.7	1.5	10.4	—0.8	
	S	26	0:55	6:47	12:52	18:45	
			12.5	1.6	10.3	—0.4	
	S	27	1:35	7:30	13:35	19:28	
			12.2	1.8	10.0	0.3	
	M	28	2:18	8:14	14:22	20:14	
			11.6	2.2	9.4	1.7	
	Tu	29	3:05	9:10	15:21	21:10	
			10.9	2.4	9.1	2.4	
☾	W	30	3:57	10:16	16:35	22:28	
			10.1	2.7	8.8	3.3	

DECEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	Th	1	5:00	11:36	18:00	23:57	
			9.4	2.6	8.9	3.7	
E	F	2	6:12	12:50	19:16	. . .	
			9.0	2.2	9.3	. . .	
P	S	3	1:24	7:21	13:47	20:31	
			3.5	9.1	1.3	10.4	
	S	4	2:31	8:26	14:42	21:30	
			3.0	9.5	0.4	11.5	
	M	5	3:26	9:22	15:30	22:19	
			2.4	10.1	—0.3	12.4	
	Tu	6	4:15	10:12	16:14	23:02	
			2.0	10.4	—1.0	13.1	
●	W	7	5:00	11:00	16:56	23:44	
			1.7	10.7	—1.1	13.3	
S	Th	8	5:42	11:40	17:35	. . .	
			1.6	10.7	—1.0	. . .	
	F	9	0:24	6:25	12:21	18:12	
			13.1	1.6	10.5	—0.5	
	S	10	1:02	7:02	13:00	18:50	
			12.8	2.0	10.1	0.3	
	S	11	1:40	7:42	13:42	19:26	
			12.0	2.4	9.5	1.3	
	M	12	2:17	8:20	14:24	20:01	
			11.1	2.8	8.8	2.4	
	Tu	13	2:55	9:02	15:08	20:40	
			10.2	3.2	8.2	3.5	
	W	14	3:32	9:52	16:00	21:24	
			9.2	3.6	7.5	4.5	
☽ A	Th	15	4:15	10:52	17:07	22:22	
			8.3	3.8	7.3	5.3	
E	F	16	5:03	11:55	18:30	23:51	
			7.8	3.8	7.3	5.5	
	S	17	6:00	12:54	19:33	. . .	
			7.5	3.5	7.9	. . .	
	S	18	1:18	7:06	13:42	20:37	
			5.2	7.5	2.9	8.8	
	M	19	2:20	8:08	14:28	21:25	
			4.7	7.7	2.0	9.9	
	Tu	20	3:10	9:03	15:12	22:07	
			3.9	8.4	1.1	11.7	
	W	21	3:54	9:52	15:52	22:47	
			3.1	9.1	0.3	12.1	
○	Th	22	4:36	10:37	16:33	23:25	
			2.2	9.6	—0.4	12.8	
N	F	23	5:18	11:20	17:15	. . .	
			1.5	10.2	—0.8	. . .	
	S	24	0:04	6:00	12:02	17:55	
			13.2	1.2	10.5	—0.8	
	S	25	0:44	6:40	12:46	18:38	
			13.3	0.9	10.7	—0.4	
	M	26	1:25	7:22	13:32	19:22	
			13.0	0.8	10.7	0.2	
P	Tu	27	2:05	8:08	14:20	20:09	
			12.4	0.8	10.5	1.1	
	W	28	2:50	8:58	15:15	21:00	
			11.5	1.0	10.0	2.3	
E ☾	Th	29	3:37	9:54	16:17	22:02	
			10.5	1.3	9.6	3.4	
	F	30	4:30	11:00	17:30	23:26	
			9.6	1.6	9.3	4.4	
	S	31	5:30	12:11	18:50	. . .	
			8.8	1.7	9.5	. . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 6.0 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Bombay Mean Local Civil, for the meridian 72° 50′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JANUARY.			
	F	1	2:07 2.7	7:38 6.3	14:20 —1.4	21:15 7.5
N	S	2	3:01 2.3	8:34 6.5	15:06 —1.9	22:00 8.0
○	S	3	3:48 2.0	9:27 6.7	15:52 —2.1	22:43 8.4
P	M	4	4:39 1.6	10:18 6.8	16:36 —2.1	23:26 8.6
	Tu	5	5:26 1.3	11:05 6.8	17:22 —1.8	. . . . . .
	W	6	0:07 8.5	6:16 1.1	11:57 6.6	18:07 —1.2
	Th	7	0:51 8.3	7:03 0.9	12:50 6.2	18:55 —0.4
E	F	8	1:34 7.9	7:55 0.8	13:50 5.8	19:46 0.5
	S	9	2:20 7.3	8:51 0.7	14:55 5.4	20:42 1.6
☾	S	10	3:07 6.8	9:55 0.7	16:13 5.1	21:57 2.5
	M	11	4:02 6.4	10:58 0.5	17:39 5.2	23:12 3.1
	Tu	12	5:00 6.0	12:02 0.2	19:02 5.5	. . . . . .
	W	13	0:25 3.4	6:05 5.8	13:00 —0.1	20:07 6.0
	Th	14	1:32 3.4	7:06 5.6	13:50 —0.4	20:58 6.7
S	F	15	2:29 3.2	8:00 5.8	14:35 —0.6	21:39 6.8
	S	16	3:17 3.0	8:49 5.8	15:14 —0.7	22:14 7.1
●	S	17	3:58 2.6	9:32 5.8	15:50 —0.7	22:46 7.2
	M	18	4:35 2.4	10:10 5.7	16:22 —0.6	23:12 7.2
	Tu	19	5:07 2.1	10:44 5.7	16:50 —0.4	23:39 7.3
A	W	20	5:42 2.0	11:14 5.6	17:18 —0.2	. . . . . .
	Th	21	0:05 7.3	6:12 1.8	11:42 5.5	17:45 0.2
	F	22	0:28 7.2	6:39 1.6	12:15 5.5	18:14 0.7
E	S	23	0:52 7.0	7:13 1.4	12:52 5.3	18:49 1.3
	S	24	1:19 6.9	7:54 1.2	13:37 4.2	19:27 1.8
	M	25	1:52 6.6	8:40 1.1	14:37 4.9	20:15 2.4
☽	Tu	26	2:32 6.3	9:38 0.9	15:58 4.8	21:25 3.1
	W	27	3:22 6.0	10:47 0.6	17:36 4.9	23:07 3.6
	Th	28	4:28 5.6	11:59 0.2	18:59 5.6	. . . . . .
	F	29	0:39 3.4	5:53 5.6	13.02 —0.4	20:02 6.4
N	S	30	1:47 2.9	7:13 5.9	13:58 —1.0	20:54 7.1
	S	31	2:46 2.3	8:21 6.3	14:51 —1.5	21:40 7.8

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			FEBRUARY.			
○	M	1	3:35 1.6	9:18 6.7	15:39 —1.7	22:22 8.3
P	Tu	2	4:22 1.0	10:10 7.0	16:25 —1.8	23:04 8.5
	W	3	5:08 0.5	11:00 7.1	17:10 —1.5	23:44 8.6
	Th	4	5:54 0.1	11:48 7.1	17:52 —0.9	. . . . . .
E	F	5	0:24 8.3	6:37 0.0	12:39 6.8	18:37 —0.1
	S	6	1:04 7.9	7:24 0.0	13:30 6.4	19:25 0.8
	S	7	1:44 7.4	8:16 —0.1	14:32 6.8	20:20 1.8
☾	M	8	2:28 6.8	9:13 0.3	15:41 5.2	21:24 2.8
	Tu	9	3:16 6.1	10:17 0.5	17:08 4.1	22:38 3.5
	W	10	4:18 5.5	11:27 0.6	18:37 5.3	23:53 3.6
S	Th	11	5:32 5.2	12:31 0.5	19:52 5.7	. . . . . .
	F	12	1:18 3.6	6:45 5.2	13:28 0.4	20:41 6.2
	S	13	2:19 3.4	7:49 5.2	14:17 0.2	21:19 6.6
	S	14	3:05 2.9	8:40 5.4	14:57 0.1	21:50 6.8
	M	15	3:43 2.3	9:24 5.6	15:32 —0.1	22:21 7.0
A ●	Tu	16	4:16 1.8	10:00 5.8	16:04 —0.1	22:45 7.1
	W	17	4:46 1.5	10:34 6.0	16:33 0.0	23:09 7.2
	Th	18	5:14 1.2	11:02 6.1	17:00 0.2	23:30 7.2
E	F	19	5:36 0.9	11:29 6.1	17:28 0.5	23:52 7.1
	S	20	6:05 0.6	12:00 6.1	17:57 0.9	. . . . . .
	S	21	0:14 7.0	6:35 0.5	12:36 6.1	18:30 1.3
	M	22	0:42 6.8	7:11 0.4	13:19 5.9	19:16 1.9
	Tu	23	1:15 6.5	7:54 0.4	14:12 5.6	19:52 2.5
☽	W	24	1:54 6.2	8:46 0.5	15:25 5.3	20:55 3.1
	Th	25	2:46 5.8	9:58 0.6	16:57 5.3	22:40 3.5
N	F	26	3:54 5.3	11:20 0.5	18:24 5.6	. . . . . .
	S	27	0:18 3.2	5:33 5.3	12:35 0.1	19:34 6.3
	S	28	1:31 2.6	7:00 5.6	13:38 —0.8	20:29 7.0
	M	29	2:27 1.8	8:11 6.2	14:34 —0.7	21:14 7.6

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			MARCH.			
P	Tu	1	3:16 1.0	9:09 6.9	15:23 —1.0	21:56 8.0
○	W	2	4:00 0.2	10:00 7.3	16:08 —1.0	22:37 8.3
E	Th	3	4:45 0.4	10:48 7.6	16:54 —0.7	23:15 8.2
	F	4	5:25 —0.8	11:35 7.6	17:37 —0.2	23:53 8.0
	S	5	6:07 —0.8	12:22 7.3	18:22 0.4	. . . . . .
	S	6	0:30 7.6	6:50 —0.6	13:12 6.8	19:08 1.2
	M	7	1:08 7.0	7:39 —0.2	14:06 6.2	20:00 2.1
	Tu	8	1:49 6.4	8:32 0.2	15:09 5.7	20:57 2.8
☾	W	9	2:34 5.6	9:32 0.7	16:28 5.3	22:11 3.4
S	Th	10	3:32 5.0	10:43 1.1	17:57 5.3	23:38 3.6
	F	11	5:03 4.6	11:55 1.3	19:13 5.5	. . . . . .
	S	12	1:02 3.5	6:31 4.6	12:57 1.3	20:06 5.9
	S	13	1:59 3.0	7:39 4.9	13:51 1.1	20:43 6.2
A	M	14	2:42 2.3	8:29 5.3	14:32 0.9	21:15 6.5
	Tu	15	3:15 1.7	9:10 5.7	15:08 0.7	21:42 6.8
	W	16	3:46 1.2	9:44 6.1	15:42 0.6	22:07 6.8
● E	Th	17	4:14 0.7	10:15 6.4	16:14 0.6	22:31 6.9
	F	18	4:37 0.4	10:54 6.6	16:44 0.7	22:52 6.9
	S	19	5:03 0.1	11:13 6.8	17:14 0.9	23:15 6.8
	S	20	5:32 —0.2	11:48 6.8	17:45 1.5	23:40 6.7
	M	21	6:03 —0.3	12:27 6.7	18:20 1.7	. . . . . .
	Tu	22	0:12 6.6	6:39 —0.3	13:08 6.4	18:57 2.1
	W	23	0:46 6.2	7:21 —0.1	14:02 6.1	19:42 2.8
N ☽	Th	24	1:28 5.8	8:12 0.3	15:07 5.9	20:51 3.2
	F	25	2:22 5.3	9:23 0.6	16:28 5.6	22:28 3.3
	S	26	3:41 4.8	10:50 0.8	17:52 5.9	. . . . . .
	S	27	0:02 2.8	5:27 5.0	12:10 0.8	19:00 6.4
	M	28	1:11 2.0	6:58 5.5	13 17 0.7	19:55 6.9
	Tu	29	2:05 1.0	8:05 6.3	14:15 0.3	20:41 7.2
P	W	30	2:52 0.2	9:00 7.0	15:06 0.1	21:24 7.6
E ○	Th	31	3:34 —0.4	9:50 7.5	15:53 0.0	22:02 7.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Karachi Mean Local Civil, for the meridian 66° 58′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:14	10:37	16:37	22:41
			—1.0	7.8	0.1	7.8
	S	2	4:55	11:22	17:20	23:19
			—1.3	7.8	0.5	7.6
	S	3	5:37	12:07	18:08	23:56
			—1.3	7.6	1.1	7.1
	M	4	6:18	12:58	18:48	. . .
			—1.0	7.1	1.8	. . .
	Tu	5	0:34	7:02	13:43	19:37
			6.5	0.5	6.5	2.7
S	W	6	1:07	7:48	14:38	20:37
			5.8	0.2	6.0	3.0
☾	Th	7	1:57	8:43	15:44	21:48
			5.1	0.9	5.5	3.4
	F	8	2:58	9:51	17:00	23:17
			4.5	1.5	5.4	3.4
	S	9	4:35	11:04	18:10	. . .
			4.2	1.9	5.5	. . .
	S	10	0:30	6:10	12:12	19:06
			3.0	4.2	2.0	5.8
A	M	11	1:23	7:17	13:12	19:48
			2.4	4.7	1.9	5.9
	Tu	12	2:04	8:07	14:00	20:22
			1.8	5.3	1.6	6.1
	W	13	2:37	8:47	14:38	20:53
			1.1	5.8	1.5	6.3
E	Th	14	3:07	9:24	15:17	21:21
			0.7	6.3	1.3	6.6
	F	15	3:34	9:56	15:50	21:48
			0.1	6.8	1.2	6.6
●	S	16	4:02	10:30	16:26	22:15
			—0.1	7.1	1.3	6.7
	S	17	4:33	11:05	17:00	22:44
			—0.7	7.2	1.4	6.6
	M	18	5:04	11:42	17:38	23:14
			—1.0	7.3	1.7	6.4
	Tu	19	5:38	12:22	18:16	23:50
			—1.0	7.2	2.1	6.2
	W	20	6:17	13:07	18:57	. . .
			—0.8	7.1	2.5	. . .
N	Th	21	0:28	7:00	13:59	19:52
			5.9	—0.4	6.7	2.8
	F	22	1:18	7:55	14:58	21:02
			5.4	0.1	6.4	3.0
☽	S	23	2:21	9:02	16:07	22:28
			5.0	0.7	6.3	2.7
	S	24	3:52	10:27	17:17	23:46
			4.6	1.1	6.3	2.0
	M	25	5:32	11:46	18:21	. . .
			4.9	1.4	6.4	. . .
P	Tu	26	0:48	6:54	12:57	19:16
			1.2	5.7	1.3	6.7
E	W	27	1:40	7:58	13:57	20:04
			0.5	6.4	1.2	6.9
	Th	28	2:24	8:52	14:47	20:47
			—0.3	7.0	1.1	7.2
	F	29	3:08	9:40	15:38	21:28
			—1.0	7.5	1.1	7.3
○	S	30	3:47	10:26	16:18	22:07
			—1.5	7.7	1.2	7.2

MAY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	4:29	11:10	17:00	22:48
			—1.6	7.7	1.5	7.0
	M	2	5:10	11:52	17:45	23:25
			—1.5	7.6	1.9	6.5
S	Tu	3	5:49	12:36	18:31	. . .
			—1.1	7.2	2.3	. . .
	W	4	0:04	6:28	13:22	19:20
			6.0	—0.6	6.8	2.7
	Th	5	0:44	7:10	14:10	20:20
			5.4	0.1	6.4	3.0
	F	6	1:26	7:57	15:02	21:28
			4.6	0.8	6.0	3.1
☾	S	7	2:28	8:48	15:58	22:40
			4.1	1.5	5.9	3.0
A	S	8	4:03	9:57	16:59	23:43
			3.9	2.2	5.7	2.9
	M	9	5:25	11:12	17:52	. . .
			4.1	2.5	5.6	. . .
	Tu	10	0:35	6:38	12:20	18:38
			2.0	4.4	2.5	5.7
E	W	11	1:15	7:34	13:14	19:19
			1.4	5.1	2.5	5.9
	Th	12	1:50	8:18	14:00	19:56
			0.7	5.7	2.2	6.2
	F	13	2:22	8:57	14:42	20:31
			0.1	6.3	2.0	6.4
	S	14	2:57	9:35	15:24	21:05
			—0.5	6.9	1.9	6.5
●	S	15	3:31	10:14	16:04	21:44
			—1.0	7.3	1.9	6.6
	M	16	4:07	10:54	16:47	22:20
			—1.3	7.6	1.9	6.5
	Tu	17	4:43	11:35	17:28	22:50
			—1.5	7.7	2.1	6.3
N	W	18	5:22	12:16	18:17	23:37
			—1.4	7.8	2.1	6.0
	Th	19	6:04	13:02	19:05	. . .
			—1.1	7.5	2.4	. . .
	F	20	0:25	6:50	13:51	20:01
			5.6	—0.5	7.3	2.4
	S	21	1:22	7:44	14:44	21:07
			5.2	0.2	7.0	2.2
☽	S	22	2:36	8:50	15:42	22:17
			4.8	0.9	6.3	1.9
P	M	23	4:03	10:05	16:42	23:23
			4.8	1.5	6.5	1.3
E	Tu	24	5:32	11:25	17:40	. . .
			5.1	2.9	6.5	. . .
	W	25	0:21	6:46	12:33	18:35
			0.6	5.6	2.1	6.5
	Th	26	1:12	7:51	13:30	19:26
			—0.2	6.3	2.1	6.6
	F	27	2:00	8:44	14:25	20:12
			—0.8	6.9	2.1	6.8
	S	28	2:44	9:32	15:14	20:57
			—1.3	7.3	2.1	6.8
○	S	29	3:26	10:16	16:00	21:38
			—1.6	7.4	2.2	6.6
	M	30	4:07	10:58	16:45	22:21
			—1.6	7.5	2.3	6.4
S	Tu	31	4:45	11:38	17:28	23:00
			—1.4	7.5	2.4	6.1

JUNE.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	5:22	12:18	18:15	23.39
			—1.0	7.3	2.6	5.5
	Th	2	6:00	12:57	19:01	. . .
			—0.5	7.1	2.7	. . .
	F	3	0:16	6:35	13:37	19:51
			5.1	0.1	6.7	3.0
	S	4	1:00	7:10	14:18	20:45
			4.6	0.8	6.5	2.8
A	S	5	1:50	7:54	15:00	21:42
			4.1	1.6	6.2	2.5
☾	M	6	3:02	8:43	15:40	22:40
			3.9	2.1	6.0	2.2
E	Tu	7	4:30	9:52	16:28	23:31
			4.1	2.7	5.8	1.7
	W	8	5:45	11:17	17:18	. . .
			4.3	3.0	5.8	. . .
	Th	9	0:19	6:50	12:20	18:07
			1.1	4.9	3.0	5.9
	F	10	1:02	7:43	13:18	18:56
			0.5	5.5	2.9	6.0
	S	11	1:44	8:29	14:10	19:44
			—0.2	6.3	2.6	6.1
	S	12	2:27	9:13	14:59	20:31
			—0.9	7.0	2.4	6.3
	M	13	3:05	9:57	15:46	21:17
			—1.4	7.5	2.2	6.5
● N	Tu	14	3:46	10:40	16:32	22:04
			—1.7	7.8	2.1	6.5
	W	15	4.29	11:22	17:20	22:07
			—1.8	8.1	2.0	6.2
	Th	16	5:10	12:05	18:07	23:36
			—1.6	8.1	1.9	6.1
P	F	17	5:56	12:50	19:00	. . .
			—1.2	7.9	1.8	. .
	S	18	0:30	6:42	13:37	19:52
			5.7	—0.6	7.7	1.6
	S	19	1:30	7:37	14:23	20:51
			5.4	0.3	7.3	1.4
☽	M	20	2:40	8:36	15:12	21:53
			5.2	1.2	6.9	1.1
E	Tu	21	3:56	9:42	16:05	22:55
			5.1	2.0	6.7	0.6
	W	22	5:18	11:00	17:02	23:52
			5.1	2.5	6.4	0.1
	Th	23	6:32	12:08	18:00	. . .
			5.5	2.9	6.3	. . .
	F	24	0:50	7:40	13:12	18:54
			—0.4	6.0	2.9	6.2
	S	25	1:40	8:37	14:10	19:46
			—0.8	6.6	2.9	6.2
	S	26	2:27	9:24	15:02	20:34
			—1.1	7.0	2.9	6.3
S	M	27	3:08	10:07	15:46	21:22
			—1.3	7.2	2.7	6.1
○	Tu	28	3:48	10:46	16:31	22:03
			—1.3	7.3	2.6	6.0
	W	29	4:27	11:22	17:13	22:45
			—1.1	7.3	2.5	5.7
	Th	30	5:00	11:55	17:54	23:21
			—0.7	7.3	2.5	5.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Karachi Mean Local Civil, for the meridian 66° 58′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	5:33 —0.3	12:28 7.1	18:35 2.4	23:56 5.1
	S	2	6:04 0.2	13:00 7.0	19:14 2.4	. . . . . .
A	S	3	0:35 4.8	6:34 0.8	13:30 6.7	19:54 2.2
	M	4	1:17 4.6	7:05 1.4	14:00 6.5	20:40 1.9
E	Tu	5	2:08 4.4	7:47 2.0	14:31 6.4	21:30 1.7
☾	W	6	3:09 4.1	8:40 2.7	15:07 6.1	22:20 1.3
	Th	7	4:31 4.3	9:54 2.2	15:56 5.9	23:22 0.9
	F	8	5:55 4.8	11:25 3.4	16:56 5.8	. . . . . .
	S	9	0:15 0.4	7:04 5.4	12:38 3.3	18:00 5.8
	S	10	1:07 —0.2	8:02 6.1	13:42 2.9	19:05 6.0
	M	11	1:57 —0.9	8:51 7.0	14:37 2.6	20:06 6.1
N	Tu	12	2:45 —1.4	9:37 7.5	15:28 2.2	21:00 6.4
●	W	13	3:30 —1.7	10:21 8.0	16:17 1.8	21:52 6.6
	Th	14	4:14 —1.8	11:08 8.2	17:04 1.4	22:44 6.6
P	F	15	4:58 —1.6	11:46 8.3	17:51 1.1	23:34 6.5
	S	16	5:45 —1.1	12:28 8.2	18:38 0.9	. . . . . .
	S	17	0:27 6.3	6:32 —0.5	13:10 7.9	19:28 0.7
E	M	18	1:23 6.0	7:21 0.4	13:52 7.4	20:21 0.5
	Tu	19	2:25 5.7	8:17 1.4	14:38 7.0	21:20 0.4
☽	W	20	3:35 5.3	9:22 2.3	15:29 6.5	22:23 0.3
	Th	21	4:59 5.3	10:35 3.0	16:26 6.1	23:27 0.1
	F	22	6:20 5.6	11:50 3.4	17:28 5.9	. . . . . .
	S	23	0:25 —0.1	7:32 5.9	13:00 3.3	18:32 5.8
	S	24	1:22 —0.4	8:28 6.4	14:00 3.3	19:31 5.7
S	M	25	2:10 —0.6	9:13 6.8	14:53 3.0	20:24 5.8
	Tu	26	2:53 —0.7	9:54 7.1	15:37 2.7	21:12 5.9
○	W	27	3:32 —0.7	10:27 7.2	16:18 2.3	21:55 5.8
	Th	28	4:07 —0.6	10:59 7.3	16:55 2.1	22:35 5.8
	F	29	4:40 —0.4	11:27 7.2	17:30 1.9	23:08 5.7
	S	30	5:10 0.0	11:58 7.1	18:02 1.8	23:38 5.5
A	S	31	5:37 0.4	12:17 7.0	18:28 1.6	. . . . . .

Moon	Day of— W.	Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	0:09 5.7	6:04 0.9	12:41 6.8	19:01 1.4
	Tu	2	0:44 5.2	6:35 1.4	13:05 6.7	19:40 1.3
	W	3	1:25 5.0	7:11 1.9	13:35 6.5	20:22 1.1
☾	Th	4	2:17 4.9	7:57 2.5	14:11 6.2	21:14 1.0
	F	5	3:30 4.7	8:57 3.2	14:59 5.9	22:20 0.8
	S	6	5:02 5.0	10:31 3.5	16:00 5.6	23:29 0.5
	S	7	6:27 5.4	12:05 3.4	17:18 5.5	. . . . . .
N	M	8	0:34 0.0	7:33 6.1	13:20 2.9	18:42 5.7
	Tu	9	1:32 —0.6	8:27 6.8	14:18 2.3	19:50 5.1
	W	10	2:26 —1.1	9:13 7.5	15:10 1.7	20:50 6.7
●	Th	11	3:12 —1.4	9:57 8.0	15:56 1.0	21:44 7.0
P	F	12	4:00 —1.5	10:38 8.3	16:41 0.5	22:34 7.2
	S	13	4:46 —1.3	11:17 8.4	17:27 0.0	23:23 7.2
E	S	14	5:30 —0.8	11:57 8.2	18:09 —0.2	. . . . . .
	M	15	0:11 7.0	6:15 —0.1	12:38 7.8	18:55 —0.3
	Tu	16	1:05 6.7	7:02 0.7	13:20 7.4	19:47 —0.2
	W	17	2:04 6.1	7:56 1.7	14:02 6.8	20:43 0.1
☽	Th	18	3:14 5.6	9:01 2.5	14:52 6.1	21:48 0.4
	F	19	4:33 5.4	10:11 3.3	15:52 5.6	22:57 0.5
	S	20	6:00 5.5	11:34 3.5	17:06 5.3	. . . . . .
S	S	21	0:03 0.5	7:16 5.8	12:52 3.5	18:20 5.2
	M	22	1:02 0.3	8:12 6.3	13:54 3.1	19:27 5.4
	Tu	23	1:57 0.2	8:54 6.6	14:44 2.7	20:22 5.5
	W	24	2:39 0.0	9:30 6.9	15:22 2.2	21:07 5.8
	Th	25	3:16 0.0	10:02 7.0	15:58 1.7	21:47 5.9
○	F	26	3:49 0.0	10:27 7.1	16:30 1.3	22:21 6.1
A	S	27	4:20 0.2	10:50 7.1	16:58 1.1	22:49 6.1
E	S	28	4:47 0.4	11:13 7.1	17:22 0.8	23:16 6.1
	M	29	5:14 0.8	11:35 6.9	17:47 0.7	23:44 6.1
	Tu	30	5:42 1.1	11:55 6.8	18:16 0.6	. . . . . .
	W	31	0:18 6.0	6:12 1.5	12:21 6.6	18:47 0.5

Moon	Day of— W.	Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	0:58 5.7	6:45 2.0	12:51 6.3	19:27 0.5
	F	2	1:48 5.5	7:27 2.5	13:30 6.0	20:16 0.6
☾	S	3	2:58 5.3	8:26 3.1	14:19 5.5	21:22 0.8
	S	4	4:21 5.2	10:00 3.4	15:27 5.2	22:46 0.8
N	M	5	5:51 5.4	11:47 3.2	17:00 5.0	. . . . . .
	Tu	6	0:05 0.5	7:02 6.1	13:02 2.7	18:32 5.4
	W	7	1:10 0.0	7:58 6.8	14:00 1.8	19:43 5.1
	Th	8	2:07 —0.4	8:45 7.3	14:48 0.9	20:42 6.8
P	F	9	2:57 —0.7	9:27 7.9	15:34 0.1	21:34 7.4
●	S	10	3:42 —0.8	10:06 8.1	16:16 —0.6	22:22 7.7
E	S	11	4:28 —0.5	10:45 8.1	16:56 —0.9	23:09 7.8
	M	12	5:13 —0.2	11:24 7.9	17:38 —1.0	23:58 7.7
	Tu	13	5:59 0.4	12:02 7.6	18:23 —0.9	. . . . . .
	W	14	0:47 7.2	6:46 1.2	12:42 7.0	19:11 —0.4
	Th	15	1:42 6.6	7:37 2.0	13:26 6.3	20:06 0.0
☽	F	16	2:45 6.0	8:38 2.8	14:17 5.5	21:07 0.5
S	S	17	4:00 5.5	9:50 3.4	15:18 5.0	22:19 0.9
	S	18	5:26 5.5	11:23 3.6	16:47 4.5	23:32 1.2
	M	19	6:42 5.6	12:43 3.3	18:17 4.7	. . . . . .
	Tu	20	0:40 1.3	7:38 6.0	13:40 2.7	19:25 5.0
	W	21	1:34 1.1	8:21 6.4	14:24 2.1	20:17 5.5
	Th	22	2:18 0.9	8:55 6.6	14:59 1.4	20:57 5.9
A	F	23	2:57 0.8	9:24 6.8	15:30 0.9	21:33 6.2
○	S	24	3:30 0.7	9:47 6.8	15:47 0.6	22:02 6.4
E	S	25	4:00 0.8	10:11 6.9	16:20 0.3	22:31 6.6
	M	26	4:29 0.9	10:32 6.8	16:45 0.1	23:00 6.7
	Tu	27	4:57 1.1	10:53 6.8	17:11 —0.2	23:31 6.6
	W	28	5:26 1.4	11:17 6.6	17:39 —0.2	. . . . . .
	Th	29	0:05 6.6	5:57 1.8	11:46 6.4	18:14 —0.2
	F	30	0:45 6.4	6:31 2.3	12:20 6.1	18:50 0.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Karachi Mean Local Civil for the meridian 66° 58′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	1:32	7:15	12:59	19:37
			6.1	2.8	5.7	0.3
N ☾	S	2	2:35	8:15	13:51	20:40
			5.9	8.3	5.2	0.7
	M	3	3:50	9:50	15:07	22:10
			5.6	3.4	4.8	1.0
	Tu	4	5:15	11:34	16:55	23:37
			5.8	2.9	4.8	1.0
	W	5	6:26	12:44	18:30	. . .
			6.2	2.0	5.3	. . .
	Th	6	0:48	7:24	13:38	19:38
			0.8	6.7	1.0	6.2
	F	7	1:48	8:11	14:25	20:35
			0.5	7.0	0.2	7.0
P E	S	8	2:40	8:54	15:07	21:25
			0.3	7.5	—0.6	7.7
●	S	9	3:28	9:34	15:47	22:11
			0.1	7.8	—1.3	8.0
	M	10	4:12	10:12	16:28	22:57
			0.2	7.8	—1.7	8.1
	Tu	11	4:56	10:50	17:10	23:42
			0.5	7.6	—1.7	7.9
	W	12	5:40	11:30	17:53	. . .
			1.1	7.1	—1.4	. . .
	Th	13	0:31	6:26	12:10	18:38
			7.5	1.7	6.6	—0.9
S	F	14	1:21	7:17	12:53	19:26
			6.9	2.4	5.9	—0.2
	S	15	2:17	8:19	13:42	20:21
			6.3	2.9	5.1	0.6
☽	S	16	3:22	9:38	14:50	21:30
			5.9	3.3	4.4	1.3
	M	17	4:37	11:02	16:31	22:44
			5.7	3.3	4.0	1.8
	Tu	18	5:48	12:17	18:02	23:58
			5.8	2.8	4.3	2.1
	W	19	6:49	13:13	19:08	. . .
			5.9	2.2	4.8	. . .
A	Th	20	1:00	7:33	13:53	20:02
			1.9	6.1	1.6	5.3
	F	21	1:46	8:07	14:27	20:38
			1.7	6.2	1.0	5.9
E	S	22	2:27	8:37	14:56	21:14
			1.6	6.4	0.5	6.3
	S	23	3:02	9:04	15:21	21:47
			1.5	6.5	0.0	6.5
○	M	24	3:35	9:30	15:47	22:17
			1.4	6.5	—0.4	7.0
	Tu	25	4:08	9:55	16:15	22:49
			1.4	6.5	—0.7	7.1
	W	26	4:42	10:22	16:43	23:22
			1.6	6.5	—1.0	7.1
	Th	27	5:17	10:49	17:16	23:59
			1.8	6.3	—1.0	7.2
	F	28	5:52	11:22	17:50	. . .
			2.1	6.2	—0.8	. . .
N	S	29	0:40	6:30	12:00	18:30
			7.1	2.6	5.9	—0.5
	S	30	1:27	7:18	12:42	19:15
			6.7	2.8	5.5	0.1
	M	31	2:22	8:24	13:42	20:17
			6.4	3.0	4.9	0.7

NOVEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
☾	Tu	1	3:25	9:47	15:08	21:40
			6.2	2.8	4.4	1.3
	W	2	4:37	11:12	16:55	23:09
			6.2	2.2	4.7	1.7
	Th	3	5:45	12:17	18:25	. . .
			6.2	1.3	5.4	. . .
	F	4	0:27	6:43	13:12	19:32
			1.6	6.5	0.5	5.2
E P	S	5	1:29	7:33	13:59	20:27
			1.5	6.8	—0.4	7.0
	S	6	2:22	8:20	14:42	21:17
			1.3	7.2	—1.2	7.5
●	M	7	3:09	9:01	15:24	22:02
			1.2	7.3	—1.8	7.9
	Tu	8	3:54	9:42	16:05	22:47
			1.2	7.3	—1.8	8.1
	W	9	4:39	10:24	16:48	23:31
			1.5	7.1	—2.0	8.0
	Th	10	5:24	11:04	17:27	. . .
			1.8	6.8	—1.8	. . .
S	F	11	0:14	6:10	11:45	18:09
			7.5	2.2	6.2	—1.0
	S	12	1:00	7:00	12:26	18:50
			7.2	2.5	5.6	—0.3
	S	13	1:50	8:00	13:15	19:36
			6.8	2.9	4.9	0.6
	M	14	2:41	9:07	14:18	20:29
			6.3	3.1	4.2	1.4
☽	Tu	15	3:34	10:21	15:44	21:40
			6.0	2.9	3.8	2.3
	W	16	4:39	11:32	17:23	22:57
			5.8	2.5	4.0	2.5
A	Th	17	5:36	12:27	18:37	. . .
			5.6	2.1	4.3	. . .
E	F	18	0:06	6:25	13:10	19:31
			2.7	5.8	1.4	4.9
	S	19	1:02	7:07	13:43	20:16
			2.7	5.9	0.7	5.5
	S	20	1:46	7:42	14:15	20:52
			2.5	6.0	0.1	6.1
	M	21	2:31	8:17	14:46	21:27
			2.4	6.1	—0.4	6.7
	Tu	22	3:12	8:50	15:19	22:01
			2.1	6.3	—1.0	7.1
○	W	23	3:48	9:23	15:50	22:38
			2.0	6.5	—1.3	7.5
	Th	24	4:27	9:58	16:25	23:14
			2.1	6.4	—1.5	7.6
N	F	25	5:08	10:32	17:00	23:53
			2.1	6.3	—1.4	7.6
	S	26	5:50	11:10	17:38	. . .
			2.2	6.1	—1.2	. . .
	S	27	0:35	6:34	11:55	18:22
			7.5	2.3	5.8	—0.7
	M	28	1:20	7:23	12:47	19:07
			7.3	2.4	5.4	0.0
	Tu	29	2:08	8:22	13:49	20:02
			7.0	2.3	5.0	0.8
☾	W	30	3:00	9:34	15:13	21:17
			6.7	2.0	4.8	1.6

DECEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	3:58	10:44	16:45	22:40
			6.4	1.5	4.7	2.2
E	F	2	5:00	11:48	18:15	. . .
			6.3	0.7	5.3	. . .
P	S	3	0:00	6:00	12:44	19:24
			2.4	6.3	0.0	6.0
	S	4	1:07	6:57	13:35	20:20
			2.5	6.5	—0.7	6.7
	M	5	2:02	7:47	14:22	21:10
			2.3	6.6	—1.4	7.1
	Tu	6	2:53	8:34	15:05	21:56
			2.2	6.8	—1.8	7.7
●	W	7	3:41	9:20	15:47	22:39
			2.1	6.8	—1.9	7.8
S	Th	8	4:25	10:04	16:28	23:20
			2.1	6.7	—1.8	7.8
	F	9	5:11	10:47	17:07	. . .
			2.2	6.4	—1.5	. . .
	S	10	0:00	5:56	11:27	17:44
			7.7	2.2	6.0	—1.0
	S	11	0:38	6:42	12:06	18:20
			7.5	2.4	5.5	—0.3
	M	12	1:18	7:32	12:50	19:00
			7.1	2.5	4.8	0.5
	Tu	13	1:58	8:24	13:40	19:37
			6.8	2.6	4.3	1.4
	W	14	2:37	9:20	14:45	20:16
			6.4	2.5	3.9	1.2
☽ A	Th	15	3:19	10:20	16:05	21:22
			6.1	2.3	3.9	2.8
E	F	16	4:05	11.17	17:33	22:52
			5.7	1.8	4.0	3.3
	S	17	4:56	12:07	18:47	. . .
			5.6	1.3	4.4	. . .
	S	18	0:05	5:50	12:52	19:42
			3.4	5.6	0.8	5.1
	M	19	1:07	6:41	13:34	20:27
			3.4	5.6	0.1	6.0
	Tu	20	2:03	7:30	14:15	21:06
			3.0	5.9	—0.5	6.6
	W	21	2:47	8:17	14:54	21:45
			2.6	6.0	—1.0	7.1
○	Th	22	3:30	9:00	15:32	22:24
			2.4	6.3	—1.5	7.6
N	F	23	4:14	9:46	16:12	23:04
			1.2	6.5	—1.7	8.0
	S	24	5:00	10:28	16:50	23:42
			1.9	6.5	—1.7	8.1
	S	25	5:44	11:12	17:32	. . .
			1.8	6.3	—1.4	. . .
	M	26	0:22	6:30	12:00	18:14
			8.0	1.7	6.1	—0.8
P	Tu	27	1:04	7:14	12:54	19:00
			7.8	1.5	5.7	0.0
	W	28	1:47	8:10	13:55	19:54
			7.5	1.3	5.5	0.9
E ☾	Th	29	2:31	9:07	15:03	20:54
			7.1	1.0	5.2	1.8
	F	30	3:20	10:10	16:28	22:14
			6.7	0.8	5.0	2.7
	S	31	4:17	11:17	17:57	23:32
			6.3	0.4	5.3	3.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 3.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Karachi Mean Local Civil, for the meridian 66° 58′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	5:16 5.2	12:24 —1.6	19:26 4.7	. . . . . .
N	S	2	0:35 2.3	6:06 5.3	13:06 —2.0	20:09 4.7
○	S	3	1:25 1.9	6:55 5.4	13:50 —2.2	20:45 4.8
P	M	4	2:15 1.9	7:42 5.3	14:32 —2.1	21:25 5.0
	Tu	5	3:06 1.7	8:31 5.0	15:15 —1.8	22:05 5.2
	W	6	3:59 1.6	9:22 4.6	15:58 —1.2	22:50 5.2
	Th	7	4:55 1.5	10:19 4.1	16:41 —0.5	23:33 5.1
E	F	8	5:58 1.4	11:22 3.4	17:30 0.4	. . . . . .
	S	9	0:19 4.9	7:06 1.2	12:45 3.0	18:28 1.1
☾	S	10	1:06 4.7	8:24 1.0	14:38 2.5	19:30 1.8
	M	11	1:56 4.5	9:41 0.6	16:55 2.5	20:50 2.2
	Tu	12	2:54 4.5	10:46 0.0	18:18 3.1	22:15 2.4
	W	13	3:50 4.5	11:35 —0.4	19:07 3.5	23:25 2.6
	Th	14	4:41 4.5	12:15 —0.8	19:46 3.6	. . . . . .
S	F	15	0:19 2.6	5:27 4.5	12:49 —1.0	20:11 4.0
	S	16	1:02 2.5	6:12 4.6	13:19 —1.1	20:35 4.1
●	S	17	1:36 2.4	6:49 4.6	13:44 —1.0	20:55 4.0
	M	18	2:10 2.4	7:20 4.6	14:09 —0.9	21:10 4.4
	Tu	19	2:41 2.3	7:51 4.3	14:32 —0.7	21:28 4.4
A	W	20	3:14 2.1	8:21 4.1	14:55 —0.5	21:50 4.5
	Th	21	3:46 2.0	8:52 3.9	15:19 —0.3	22:14 4.6
	F	22	4:16 1.9	9:31 3.7	15:48 0.1	22:36 4.7
E	S	23	4:54 1.7	10:14 3.3	16:13 0.6	23:03 4.6
	S	24	5:41 1.5	11:08 2.9	16:41 1.1	23:36 4.6
☽	M	25	6:44 1.2	12:14 2.5	17:19 1.6	. . . . . .
	Tu	26	0:20 4.6	7:56 0.9	14:14 2.5	18:14 2.2
	W	27	1:16 4.5	9:12 0.3	16:45 2.7	20:14 2.4
	Th	28	2:29 4.5	10:20 —0.3	17:52 3.1	22:13 2.6
	F	29	3:46 4.7	11:16 —0.9	18:35 3.7	23:30 2.4
N	S	30	4:56 4.9	12:05 —1.5	19:13 4.3	. . . . . .
	S	31	0:28 2.2	5:55 5.2	12:51 —1.8	19:48 4.7

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	1.18 1.8	6:52 5.8	13:35 —1.9	20:22 5.1
P	Tu	2	2:05 1.4	7:42 5.4	14:18 —1.8	20:58 5.4
	W	3	2:52 1.0	8:33 5.2	14:59 —1.4	21:35 5.5
	Th	4	3:41 0.8	9:24 4.8	15:40 —0.9	22:14 5.5
E	F	5	4:29 0.6	10:15 4.3	16:22 —0.2	22:52 5.3
	S	6	5:20 0.6	11:15 3.7	17:08 0.7	23:32 5.0
	S	7	6:21 0.7	12:28 3.0	17:51 1.5	. . . . . .
☾	M	8	0:13 4.7	7:35 0.7	14:15 2.6	18:42 2.3
	Tu	9	1:01 4.4	8:59 0.6	17:00 2.7	19:45 2.6
	W	10	2:04 4.2	10:20 0.3	18:26 3.2	22:00 2.8
S	Th	11	3:20 3.9	11:18 —0.1	19:05 3.6	23:30 2.8
	F	12	4:28 4.0	12.00 —0.3	19:31 3.9	. . . . . .
	S	13	0:24 2.5	5:23 4.1	12:32 —0.5	19:50 4.1
	S	14	1:00 2.5	6:11 4.2	13:00 —0.6	20:06 4.2
	M	15	1:29 2.3	6:48 4.2	13:25 —0.6	20:20 4.4
A ●	Tu	16	1:55 2.0	7:20 4.2	13:47 —0.5	20:31 4.5
	W	17	2:20 1.7	7:49 4.2	14:10 —0.4	20:47 4.6
	Th	18	2:48 1.4	8:20 4.2	14:35 —0.3	21:07 4.8
E	F	19	3:11 1.2	8:53 4.1	15:03 0.0	21:30 4.9
	S	20	3:40 0.9	9:30 3.9	15:28 0.4	21:51 4.9
	S	21	4:15 0.7	10:10 3.6	15:58 0.8	22:24 4.8
	M	22	4:58 0.6	10:51 3.3	16:28 1.3	22:54 4.7
	Tu	23	5:46 0.6	11:54 2.9	17:01 1.8	23:35 4.6
☽	W	24	6:55 0.5	13:29 2.7	17:50 2.4	. . . . . .
	Th	25	0:30 4.4	8:21 0.3	15:59 2.8	20:00 2.7
N	F	26	1:53 4.2	9:44 0.0	17:24 3.3	22:09 2.6
	S	27	3:31 4.2	10:51 —0.5	18:07 3.9	23:23 2.4
	S	28	4:52 4.5	11:46 —0.9	18:41 4.4	. . . . . .
	M	29	0:17 1.8	5:58 4.9	12:34 —1.2	19:15 4.9

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:05 1.2	6:52 5.1	13:19 —1.2	19:49 5.3
○	W	2	1:50 0.6	7:42 5.2	13:59 —1.0	20:23 5.5
E	Th	3	2:34 0.1	8:31 5.1	14:41 0.7	20:59 5.6
	F	4	3:14 —0.1	9:20 4.9	15:24 —0.2	21:35 5.5
	S	5	3:59 —0.2	10:09 4.4	16:02 0.5	22:10 5.3
	S	6	4:47 —0.1	11:02 3.9	16:40 1.2	22:47 5.0
	M	7	5:41 0.1	12:10 3.2	17:21 1.9	23:25 4.6
	Tu	8	6:45 0.4	13:48 2.8	18:16 2.4	. . . . . .
☾	W	9	0:13 4.2	8:00 0.6	16:00 2.8	20:17 2.7
S	Th	10	1:11 3.7	9:27 0.6	17:40 3.2	22:30 2.8
	F	11	2:50 3.4	10:37 0.5	18:20 3.6	23:48 2.7
	S	12	4:24 3.4	11:26 0.4	18:45 3.9	. . . . . .
	S	13	0:23 2.4	5:26 3.5	12:02 0.2	19:00 4.1
A	M	14	0:47 2.1	6:10 3.8	12:30 0.2	19:16 4.3
	Tu	15	1:09 1.7	6:44 4.0	12:54 0.2	19:28 4.4
	W	16	1:31 1.3	7:15 4.1	13:22 0.2	19:44 4.6
● E	Th	17	1:55 0.9	7:45 4.2	13:52 0.2	20:04 4.8
	F	18	2:16 0.5	8:17 4.3	14:20 0.4	20:29 4.9
	S	19	2:41 0.2	8:50 4.3	14:47 0.6	20:50 4.9
	S	20	3:11 0.0	9:24 4.2	15:15 0.9	21:17 4.9
	M	21	3:47 —0.1	10:05 3.9	15:44 1.3	21:46 4.9
	Tu	22	4:28 —0.1	10:54 3.6	16:17 1.8	22:20 4.7
	W	23	5:16 0.0	11:54 3.2	16:59 2.2	22:59 4.4
N	Th	24	6:19 0.2	13:21 3.0	18:11 2.5	23:56 4.1
☽	F	25	7:38 0.3	15:15 3.2	20:25 2.6	. . . . . .
	S	26	1:35 3.8	9:08 0.3	16:34 3.6	22:09 2.5
	S	27	3:30 3.8	10:22 0.1	17:22 4.1	23:15 1.9
	M	28	4:57 4.1	11:21 —0.1	18:00 4.5	. . . . . .
	Tu	29	0:05 1.1	5:59 4.5	12:11 —0.2	18:35 4.9
P	W	30	0:50 0.3	6:51 4.8	13:01 —0.2	19:11 5.2
E ○	Th	31	1:27 —0.2	7:40 5.0	13:42 —0.1	19:48 5.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Aden Mean Local Civil for the meridian 44° 59′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:08	8:25	14:20	20:24		S	1	2:30	9:06	14:35	20:25		W	1	3:20	10:15	15:46	21:05
			—0.6	5.0	0.3	5.5				—1.3	4.5	1.6	5.3				—1.0	4.2	2.5	4.4
	S	2	2:51	9:12	14:59	21:00		M	2	3:09	9:51	15:14	21:00		Th	2	3:53	10:50	16:34	21:39
			—0.9	4.7	0.7	5.4				—1.2	4.3	1.9	5.0				—0.7	4.1	2.5	3.8
	S	3	3:34	10:00	15:35	21:35	S	Tu	3	3:49	10:36	15:56	21:34		F	3	4:25	11:29	17:29	22:15
			—0.9	4.3	1.2	5.2				—0.9	4.0	2.2	4.6				—0.3	4.0	2.5	3.4
	M	4	4:19	10:51	16:15	22:10		W	4	4:29	11:24	16:43	22:06		S	4	4:58	12:09	18:34	23:07
			—0.7	3.9	1.7	4.8				—0.5	3.8	2.4	4.1				0.2	4.0	2.5	2.9
	Tu	5	5:05	11:50	16:58	22:45		Th	5	5:11	12:20	17:45	22:40	A	S	5	5:35	12:50	19:44	. . .
			—0.3	3.4	2.2	4.3				0.0	3.5	2.6	3.5				0.6	4.0	2.4	. . .
S	W	6	5:57	13:10	17:56	23:22		F	6	5:55	13:25	19:14	23:24	☾	M	6	0:25	6:23	13:30	20:45
			0.1	3.2	2.5	3.8				0.5	3.5	2.6	3.0				2.5	1.1	4.1	2.1
☾	Th	7	6:58	15:36	19:50	. . .	☾	S	7	6:49	14:37	21:08	. . .	E	Tu	7	2:12	7:31	14:12	21:34
			0.6	3.1	2.8	. . .				0.9	3.5	2.6	. . .				2.4	1.5	4.1	1.5
	F	8	0:18	8:15	17:02	22:40	A	S	8	1:19	7:54	15:39	22:21		W	8	3:51	8:47	15:00	22:18
			3.3	0.9	3.4	2.7				2.7	1.3	3.6	2.2				2.5	1.9	4.2	1.0
	S	9	2:29	9:30	17:39	23:35		M	9	3:25	9:10	16:12	22:58		Th	9	4:50	10:07	15:58	22:58
			2.9	1.1	3.6	2.5				2.5	1.5	3.8	1.7				2.6	2.1	4.5	0.3
	S	10	4:15	10:30	17:53	23:58		Tu	10	4:42	10:16	16:41	23:21		F	10	5:40	11:04	16:47	23:35
			2.8	1.1	3.8	2.1				2.6	1.6	4.0	1.2				2.8	2.2	4.8	—0.4
A	M	11	5:17	11:10	18:01	. . .	E	W	11	5:29	11:00	17:05	23:45		S	11	6:24	11:53	17:30	. . .
			3.1	1.1	3.9	. . .				3.0	1.6	4.2	0.6				3.5	2.3	5.0	. . .
	Tu	12	0:15	5:57	11:51	18:16		Th	12	6:10	11:40	17:37	. . .		S	12	0:16	7:05	12:40	18:13
			1.6	3.3	1.0	4.2				3.4	1.7	4.5	. . .				—1.0	4.0	2.3	5.2
	W	13	0:36	6:30	12:25	18:34		F	13	0:16	6:46	12:19	18:12		M	13	0:58	7:46	13:25	18:56
			1.1	3.7	0.9	4.4				0.0	3.8	1.7	4.8				—1.5	4.2	2.3	5.3
E	Th	14	0:55	7:02	12:55	18:59		S	14	0:49	7:22	12:56	18:44	●	Tu	14	1:39	8:28	14:11	19:41
			0.6	4.0	0.9	4.6				—0.5	4.1	1.7	5.0	N			—1.8	4.5	2.2	5.3
	F	15	1:19	7:34	13:23	19:25	●	S	15	1:23	7:58	13:36	19:18		W	15	2:22	9:10	14:58	20:28
			0.2	4.2	0.9	4.8				—1.0	4.4	1.7	5.1				—1.9	4.7	2.2	5.2
●	S	16	1:47	8:09	13:55	19:50		M	16	1:59	8:40	14:16	19:52		Th	16	3:06	9:53	15:46	21:19
			—0.3	4.4	1.0	5.0				—1.3	4.5	1.8	5.1				—1.8	4.7	2.1	4.9
	S	17	2:21	8:45	14:28	20:16		Tu	17	2:38	9:22	14:59	20:30	P	F	17	3:52	10:36	16:40	22:14
			—0.7	4.4	1.2	5.1				—1.5	4.5	2.0	5.1				—1.4	4.8	2.1	4.3
	M	18	2:55	9:25	15:08	20:46	N	W	18	3:19	10:09	15:45	21:11		S	18	4:40	11:23	17:36	23:19
			—0.9	4.4	1.5	5.0				—1.5	4.5	2.2	4.9				—0.9	4.8	1.9	3.8
	Tu	19	3:35	10:11	15:39	21:23		Th	19	4:02	10:58	16:38	22:00		S	19	5:31	12:11	18:37	. . .
			—0.9	4.2	1.9	4.9				—1.2	4.5	2.3	4.5				—0.3	4.8	1.7	. . .
	W	20	4:15	11:00	16:21	22:04		F	20	4:51	11:50	17:41	23:00	☽ E	M	20	0:36	6:40	13:00	19:45
			—0.8	4.0	2.2	4.6				—0.8	4.4	2.4	4.0				3.2	0.4	4.7	1.3
N	Th	21	5:05	11:58	17:16	22:50		S	21	5:47	12:47	18:48	. . .		Tu	21	2:06	7:49	13:54	20:57
			—0.5	3.8	2.4	4.2				—0.2	4.3	2.2	. . .				2.9	1.1	4.6	0.9
	F	22	6:04	13:10	18:44	23:58	☽	S	22	0:18	6:52	13:50	20:19		W	22	3:46	9:01	14:52	22:04
			—0.1	3.6	2.5	3.7				3.4	0.4	4.3	1.8				2.7	1.7	4.7	0.3
☽	S	23	7:17	14:32	20:28	. . .	P	M	23	2:02	8:10	14:48	21:29		Th	23	5:11	10:13	15:50	23:01
			0.3	3.7	2.4	. . .				3.0	0.9	4.4	1.2				2.9	2.2	4.7	—0.3
	S	24	1:46	8:40	15:43	21:55	E	Tu	24	3:43	9:31	15:44	22:29		F	24	6:14	11:15	16:44	23:50
			3.3	0.6	3.9	1.9				3.1	1.3	4.5	0.6				3.3	2.4	4.9	—0.8
	M	25	3:38	9:54	16:36	22:58		W	25	5:00	10:34	16:32	23:21		S	25	7:01	12:08	17:34	. . .
			3.3	0.8	4.3	1.1				3.3	1.6	4.7	—0.1				3.6	2.5	5.0	. . .
P	Tu	26	4:58	11:01	17:19	23:42		Th	26	6:02	11:28	17:18	. . .		S	26	0:33	7:41	12:55	18:19
			3.6	0.8	4.5	0.4				3.7	1.8	5.0	. . .				—1.2	3.8	2.5	5.0
E	W	27	5:58	11:52	17:58	. . .		F	27	0:09	6:55	12:15	18:00	S ○	M	27	1:10	8:16	13:38	19:00
			4.2	0.8	4.9	. . .				—0.7	3.9	1.9	5.1				—1.4	4.0	2.5	5.0
	Th	28	0:26	6:48	12:36	18:38		S	28	0:51	7:40	12:59	18:41		Tu	28	1:45	8:49	14:16	19:37
			—0.3	4.5	0.9	5.2				—1.2	4.1	2.1	5.2				—1.4	4.0	2.5	4.8
	F	29	1:09	7:36	13:19	19:15	○	S	29	1:30	8:21	13:40	19:19		W	29	2:19	9:20	14:57	20:15
			—0.8	4.6	1.1	5.4				—1.5	4.2	2.2	5.2				—1.2	4.2	2.5	4.5
○	S	30	1:50	8:22	13:56	19:50		M	30	2:09	9:03	14:20	19:55		Th	30	2:49	9:30	15:37	20:45
			—1.2	4.6	1.3	5.4				—1.5	4.3	2.3	5.0				—0.9	4.1	2.5	4.2
							S	Tu	31	2:45	9:40	15:02	20:31							
										—1.4	4.2	2.4	4.7							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (–) sign is before the height, in which case subtract it.

The time used is Aden Mean Local Civil for the meridian 44° 59′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	3:29	10:30	16:13	21:10		E	M	1	3:44	10:31	16:44	22:07			Th	1	4:06	10:34	17:23	23:24	
			—0.6	4.4	2.4	3.7					0.3	4.7	1.6	3.3					1.4	4.6	0.6	3.0	
	S	2	3:55	11:00	16:57	21:41			Tu	2	4:09	10:53	17:25	22:50			F	2	4:36	11:10	18:24	. . .	
			—0.3	4.4	2.3	3.4					0.7	4.6	1.4	3.0					1.9	4.5	0.6	. . .	
A	S	3	4:19	11:27	17:45	22:24			W	3	4:29	11:21	18:18	23:44		☾	S	3	0:41	5:16	11:59	19:42	
			0.1	4.4	2.2	3.0					1.1	4.6	1.2	2.6					2.7	2.3	4.3	0.5	
	M	4	4:48	11:55	18:30	23:10		☾	Th	4	4:59	11:56	19:22	. . .		N	S	4	2:47	6:52	13:13	21:05	
			0.6	4.4	2.0	2.7					1.6	4.5	1.0	. . .					2.8	2.6	4.1	0.2	
E	Tu	5	5:11	12:23	19:27	. . .			F	5	1:06	5:36	12:45	20:36			M	5	4:46	9:12	14:52	22:18	
			1.1	4.4	1.8	. . .					2.5	2.1	4.4	0.6					3.2	2.5	4.0	—0.1	
☾	W	6	0:22	5:39	13:00	20:33			S	6	3:42	6:50	13:50	21:48			Tu	6	5:35	10:43	16:19	23:18	
			2.5	1.4	4.4	1.4					2.5	2.4	4.4	0.1					3.7	2.4	4.2	—0.5	
	Th	7	2:20	6:25	13:46	21:36			S	7	5:24	9:10	15:10	22:50			W	7	6:12	11:45	17:29	. . .	
			2.4	2.0	4.4	0.8					2.9	2.6	4.5	—0.5					4.2	1.8	4.6	. . .	
	F	8	4:23	7:55	14:45	22:30		N	M	8	6:12	10:47	16:25	23:44			Th	8	0:07	6:48	12:36	18:29	
			2.5	2.3	4.5	0.1					3.5	2.5	4.6	—1.0					—0.7	4.7	1.1	4.9	
	S	9	5:43	9:41	15:48	23:21			Tu	9	6:51	11:55	17:31	. . .		P ●	F	9	0:52	7:21	13:24	19:20	
			2.9	2.5	4.7	—0.5					4.0	2.3	4.9	. . .					—0.8	5.1	0.5	5.1	
	S	10	6:32	11:04	16:49	. . .			W	10	0:31	7:27	12:50	18:29			S	10	1:35	7:56	14:08	20:09	
			3.4	2.5	4.9	. . .					—1.4	4.5	1.9	5.1					—0.8	5.4	—0.1	5.1	
	M	11	0:06	7:15	12:08	17:44		●	Th	11	1:15	8:00	13:40	19:21		E	S	11	2:20	8:32	14:48	20:58	
			—1.1	3.9	2.5	5.0					—1.6	4.9	1.4	5.2					—0.5	5.5	—0.4	5.0	
N	Tu	12	0:51	7:54	13:08	18:35		P	F	12	1:58	8:35	14:29	20:12			M	12	3:01	9:11	15:34	21:47	
			—1.6	4.3	2.3	5.2					—1.5	5.2	0.9	5.2					0.0	5.5	—0.5	4.6	
●	W	13	1:34	8:30	13:53	19:25			S	13	2:39	9:11	15:16	21:03			Tu	13	3:41	9:49	16:23	22:41	
			—1.9	4.6	2.0	5.2					—1.3	5.4	0.6	4.9					0.5	5.3	—0.5	4.1	
	Th	14	2:15	9:08	14:44	20:15		E	S	14	3:19	9:49	16:02	21:55			W	14	4:21	10:27	17:16	23:45	
			—1.9	5.0	1.7	5.1					—0.8	5.5	0.4	4.5					1.2	5.0	—0.3	3.5	
P	F	15	2:57	9:45	15:34	21:05			M	15	4:02	10:27	16:51	22:51			Th	15	5:04	11:09	18:17	. . .	
			—1.7	5.1	1.5	4.9					—0.2	5.3	0.3	4.0					1.9	4.6	0.0	. . .	
	S	16	3:39	10:25	16:27	21:58			Tu	16	4:46	11:05	17:49	23:56		☽	F	16	1:12	5:58	11:56	19:30	
			—1.3	5.2	1.3	4.4					0.6	5.1	0.3	3.4					3.2	2.4	4.2	0.3	
	S	17	4:21	11.05	17.23	22:56			W	17	5:27	11:48	18:56	. . .		S	S	17	3:25	7:27	12:59	20:53	
			—0.7	5.2	1.1	3.9					1.3	4.9	0.3	. . .					2.9	2.6	3.8	0.4	
E	M	18	5:05	11:48	18:21	. . .		☽	Th	18	1:24	6:15	12:34	20:15			S	18	5:14	9:31	14:26	22:10	
			0.0	5.1	1.0	. . .					2.9	2.1	4.6	0.3					3.4	2.7	3.5	0.4	
☽	Tu	19	0:05	5:57	12:30	19:30			F	19	3:42	7:27	13:31	21:38			M	19	6:02	11:11	16:04	23:06	
			3.4	0.9	4.9	0.9					2.8	2.5	4.3	0.2					3.7	2.5	3.4	0.4	
	W	20	1:31	6:48	13:20	20:48			S	20	5:45	9:07	14:44	22:48			Tu	20	6:32	12:03	17:12	23:48	
			2.9	1.6	4.7	0.6					3.1	2.7	4.1	0.0					4.0	2.2	3.5	0.4	
	Th	21	3:34	7:50	14:12	22:05		S	S	21	6:39	10:52	16:00	23:40			W	21	6:54	12:35	18:01	. . .	
			2.7	2.3	4.6	0.2					3.6	2.7	4.0	—0.2					4.2	1.8	3.7	. . .	
	F	22	5:35	9:11	15:14	23:08			M	22	7:12	11:59	17:04	. . .			Th	22	0:19	7:05	13:00	18:35	
			2.9	2.5	4.5	—0.2					3.8	2.5	4.0	. . .					0.4	4.3	1.5	3.9	
	S	23	6:43	10:34	16:13	23:56			Tu	23	0:19	7:36	12:44	17:56		A	F	23	0:45	7:19	13:22	19:07	
			3.4	2.7	4.5	—0.6					—0.4	4.0	2.4	4.1					0.5	4.4	1.1	4.0	
	S	24	7:25	11:45	17:05	. . .			W	24	0:50	7:55	13:16	18:40		○	S	24	1:14	7:31	13:45	19:36	
			3.5	2.7	4.5	. . .					—0.4	4.2	2.1	4.1					0.5	4.5	0.7	4.1	
S	M	25	0:37	7:58	12:39	17:55			Th	25	1:17	8:12	13:46	19:15		E	S	25	1:41	7:50	14:05	20:06	
			—0.9	3.9	2.5	4.5					—0.4	4.3	1.8	4.2					0.6	4.6	0.4	4.2	
	Tu	26	1:10	8:26	13:24	18:42		○	F	26	1:41	8:25	14:13	19:45			M	26	2:04	8:12	14:30	20:38	
			—1.0	4.1	2.4	4.5					—0.2	4.4	1.5	4.1					0.7	4.7	0.2	4.1	
○	W	27	1:40	8:50	14:00	19:20		A	S	27	2:04	8:39	14:40	20:15			Tu	27	2:30	8:35	14:58	21:07	
			—1.0	4.2	2.3	4.4					—0.1	4.6	1.3	4.0					0.9	4.8	0.0	4.0	
	Th	28	2:09	9:12	14:36	19:54		E	S	28	2:28	8:57	15:06	20:45			W	28	2:55	8:59	15:30	21:45	
			—0.8	4.3	2.1	4.3					0.1	4.7	1.1	3.9					1.2	4.8	—0.1	3.9	
	F	29	2:34	9:27	15:10	20:25			M	29	2:55	9:16	15:30	21:20			Th	29	3:22	9:25	16:07	22:28	
			—0.6	4.4	1.9	4.1					0.4	4.7	0.9	3.8					1.5	4.7	—0.2	3.6	
A	S	30	2:57	9:46	15:43	20:57			Tu	30	3:19	9:36	16:01	21:57			F	30	3:52	9:56	16:51	23:22	
			—0.4	4.5	1.8	3.9					0.7	4.7	0.7	3.6					1.9	4.6	0.0	3.3	
	S	31	3:20	10:09	16:16	21:29			W	31	3:41	10:04	16:41	22:31									
			—0.1	4.5	1.7	3.6					1.0	4.7	0.6	3.4									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Aden Mean Local Civil, for the meridian 44° 59′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:40	11:57	18:14	. . .	
			1.0	4.2	0.7	. . .	
N	S	2	0:35	6:40	12:55	19:07	
			4.2	0.8	4.4	0.5	
○	S	3	1:27	7:31	13:47	19:57	
			4.4	0.6	4.5	0.4	
P	M	4	2:17	8:24	14:38	20:44	
			4.6	0.5	4.6	0.3	
	Tu	5	3:04	9:15	15:27	21:32	
			4.8	0.4	4.7	0.2	
	W	6	3:52	10:04	16:15	22:20	
			4.8	0.4	4.6	0.3	
	Th	7	4:40	10:51	17:08	23:10	
			4.8	0.4	4.6	0.4	
E	F	8	5:30	11:42	17:57	. . .	
			4.7	0.5	4.4	. . .	
☾	S	9	0:00	6:20	12:33	18:50	
			0.5	4.5	0.7	4.3	
	S	10	0:50	7:11	13:27	19:46	
			0.8	4.4	0.9	4.0	
	M	11	1:44	8:06	14:26	20:48	
			1.0	4.1	1.1	3.8	
	Tu	12	2:45	9:07	15:33	21:55	
			1.3	3.9	1.3	3.7	
	W	13	3:55	10:12	16:44	23:08	
			1.4	3.8	1.3	3.7	
	Th	14	5:09	11:18	17:50	. . .	
			1.5	3.8	1.3	. . .	
S	F	15	0:06	6:16	12:21	18:46	
			3.7	1.4	3.8	1.2	
	S	16	1:02	7:10	13:16	19:32	
			3.9	1.3	4.0	1.0	
●	S	17	1:48	7:57	14:02	20:12	
			4.0	1.1	4.1	0.9	
	M	18	2:27	8:34	14:40	20:44	
			4.1	1.0	4.1	0.8	
	Tu	19	3:02	9:09	15:14	21:15	
			4.2	0.9	4.2	0.8	
A	W	20	3:34	9:39	15:46	21:46	
			4.3	0.9	4.2	0.7	
	Th	21	4:04	10:09	16:16	22:15	
			4.3	0.8	4.2	0.7	
	F	22	4:33	10:40	16:48	22:47	
			4.4	0.7	4.2	0.7	
E	S	23	5:05	11:12	17:22	23:20	
			4.4	0.7	4.2	0.7	
	S	24	5:40	11:48	18:00	. . .	
			4.4	0.7	4.1	. . .	
☽	M	25	0:00	6:17	12:27	18:41	
			0.8	4.3	0.8	4.0	
	Tu	26	0:40	7:02	13:15	19:32	
			0.9	4.1	1.0	3.8	
	W	27	1:32	7:55	14:10	20:34	
			1.1	3.9	1.1	3.6	
	Th	28	2:35	9:04	15:20	21:50	
			1.3	3.7	1.3	3.5	
	F	29	3:55	10:23	16:43	23:12	
			1.5	3.7	1.3	3.7	
N	S	30	5:19	11:40	18:00	. . .	
			1.3	3.9	1.1	. . .	
	S	31	0:24	6:32	12:48	19:04	
			4.0	1.0	4.2	0.7	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	M	1	1:22	7:32	13:47	19:55	
			4.3	0.7	4.5	0.4	
P	Tu	2	2:12	8:23	14:36	20:42	
			4.7	0.3	4.8	0.1	
	W	3	2:57	9:10	15:20	21:25	
			5.0	0.1	5.0	—0.1	
	Th	4	3:42	9:52	16:02	22:07	
			5.2	0.0	5.0	—0.1	
E	F	5	4:23	10:34	16:45	22:47	
			5.2	0.0	5.0	0.0	
	S	6	5:02	11:14	17:27	23:28	
			5.1	0.1	4.8	0.2	
	S	7	5:44	11:55	18:10	. . .	
			4.8	0.5	4.5	. . .	
☾	M	8	0:10	6:28	12:39	18:57	
			0.6	4.5	0.8	4.1	
	Tu	9	0:55	7:15	13:30	19:58	
			1.0	4.0	1.2	3.7	
	W	10	1:52	8:16	14:36	21:06	
			1.5	3.6	1.6	3.4	
S	Th	11	3:07	9:33	16:11	22:37	
			1.8	3.3	1.8	3.2	
	F	12	4:57	11:05	17:46	. . .	
			1.9	3.3	1.7	. . .	
	S	13	0:02	6:22	12:20	18:50	
			3.4	1.7	3.5	1.4	
	S	14	1:00	7:16	13:15	19:32	
			3.6	1.4	3.8	1.1	
	M	15	1:44	7:55	13:56	20:07	
			3.9	1.1	4.1	0.9	
A	Tu	16	2:17	8:25	14:29	20:33	
●			4.2	0.9	4.3	0.7	
	W	17	2:46	8:51	14:57	20:58	
			4.4	0.7	4.4	0.5	
	Th	18	3:12	9:17	15:23	21:22	
			4.6	0.5	4.4	0.4	
E	F	19	3:37	9:40	15:48	21:48	
			4.7	0.4	4.6	0.3	
	S	20	4:02	10:07	16:15	22:14	
			4.8	0.3	4.6	0.2	
	S	21	4:29	10:35	16:45	22:45	
			4.8	0.3	4.6	0.3	
	M	22	5:00	11:07	17:17	23:17	
			4.7	0.4	4.4	0.5	
	Tu	23	5:34	11:42	17:54	23:57	
			4.5	0.6	4.2	0.7	
☽	W	24	6:15	12:26	18:40	. . .	
			4.2	0.8	3.9	. . .	
	Th	25	0:46	7:07	13:22	19:48	
			1.1	3.8	1.2	3.5	
N	F	26	1:53	8:22	14:41	21:18	
			1.5	3.5	1.5	3.3	
	S	27	3:31	10:05	16:32	23:01	
			1.7	3.4	1.6	3.5	
	S	28	5:20	11:38	18:00	. . .	
			1.5	3.7	1.2	. . .	
	M	29	0:18	6:36	12:46	19:00	
			4.0	1.0	4.2	0.7	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	1:14	7:28	13:39	19:46	
			4.4	0.5	4.7	0.2	
○	W	2	2:00	8:12	14:22	20:27	
			5.0	0.0	5.1	—0.1	
E	Th	3	2:40	8:51	15:02	21:05	
			5.3	—0.2	5.3	—0.3	
	F	4	3:19	9:29	15:39	21:42	
			5.5	—0.3	5.3	—0.3	
	S	5	3:56	10:05	16:15	22:18	
			5.5	—0.3	5.2	—0.2	
	S	6	4:32	10:40	16:53	22:53	
			5.3	0.0	5.0	0.1	
	M	7	5:09	11:16	17:32	23:31	
			4.9	0.3	4.5	0.6	
	Tu	8	5:48	11:56	18:12	. . .	
			4.4	0.8	4.0	. . .	
☾	W	9	0:12	6:32	12:38	19:02	
			1.1	3.9	1.3	3.5	
S	Th	10	1:04	7:28	13:40	20:18	
			1.6	3.4	1.8	3.1	
	F	11	2:24	9:05	15:49	22:20	
			2.0	3.0	2.1	3.0	
	S	12	5:00	11:00	17:45	23:50	
			2.1	3.1	1.8	3.2	
	S	13	6:19	12:14	18:40	. . .	
			1.7	3.4	1.4	. . .	
A	M	14	0:43	7:02	13:00	19:15	
			3.7	1.3	3.9	1.1	
	Tu	15	1:20	7:33	13:36	19:42	
			4.1	1.0	4.2	0.8	
	W	16	1:49	7:58	14:04	20:05	
			4.4	0.7	4.5	0.5	
●	Th	17	2:15	8:20	14:28	20:26	
E			4.7	0.4	4.7	0.3	
	F	18	2:40	8:42	14:52	20:50	
			4.8	0.2	4.8	0.2	
	S	19	3:04	9:06	15:16	21:14	
			5.0	0.1	4.9	0.1	
	S	20	3:28	9.32	15:43	21:40	
			5.0	0.0	4.9	0.1	
	M	21	3:55	10:00	16:11	22:11	
			5.0	0.1	4.8	0.2	
	Tu	22	4:25	10:32	16:44	22:46	
			4.8	0.3	4.5	0.4	
	W	23	5:00	11:10	17:21	23:27	
			4.5	0.6	4.2	0.8	
N	Th	24	5:42	11:54	18:07	. . .	
☽			4.1	0.9	3.8	. . .	
	F	25	0:18	6:39	12:52	19:20	
			1.3	3.6	1.4	3.4	
	S	26	1:32	8:08	14:24	21:12	
			1.6	3.3	1.7	3.2	
	S	27	3:37	10:10	16:34	22:58	
			1.8	3.3	1.6	3.6	
	M	28	5:24	11:38	17:54	. . .	
			1.4	3.8	1.1	. . .	
P	Tu	29	0:05	6:24	12:35	18:43	
			4.1	0.8	4.4	0.6	
E	W	30	0:55	7:10	13:21	19:25	
			4.7	0.3	4.9	0.1	
○	Th	31	1:37	7:48	14:00	20:02	
			5.2	—0.2	5.2	—0.2	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2 3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Town Mean Local Civil, for the meridian 18° 25′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.: ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	2:14	8:24	14:35	20:37	
			5.5	—0.3	5.4	—0.2	
	S	2	2:52	9:00	15:10	21:14	
			5.5	—0.3	5.4	—0.1	
	S	3	3:27	9:32	15:46	21:47	
			5.4	0.0	5.2	0.1	
	M	4	4:02	10:06	16:20	22:22	
			5.1	0.1	4.9	0.3	
	Tu	5	4:36	10:41	16:57	22:58	
			4.7	0.5	4.4	0.7	
S	W	6	5:14	11:18	17:36	23:40	
			4.2	0.9	3.9	1.2	
☾	Th	7	5:55	12:02	18:25	. . .	
			3.7	1.4	3.4	. . .	
	F	8	0:27	6:57	13:04	19:48	
			1.7	3.2	1.9	3.0	
	S	9	2:02	8:50	15:21	21:51	
			2.1	2.9	2.2	3.0	
A	S	10	4:38	10:40	17:40	23:14	
			2.0	3.1	1.9	3.3	
	M	11	5:47	11:47	18:02	. . .	
			1.6	3.5	1.5	. . .	
	Tu	12	0:02	6:24	12:28	18:35	
			3.7	1.2	3.9	1.1	
E	W	13	0:37	6:51	13:00	19:00	
			4.1	0.9	4.2	0.8	
	Th	14	1:07	7:15	13:26	19:25	
			4.5	0.6	4.5	0.5	
●	F	15	1:35	7:40	13:51	19:51	
			4.7	0.3	4.7	0.3	
	S	16	2:02	8:04	14:17	20:16	
			4.9	0.1	4.8	0.2	
	S	17	2:28	8:32	14:45	20:44	
			5.0	0.0	4.9	0.1	
	M	18	2:56	9:01	15:15	21:12	
			5.0	0.0	4.9	0.1	
	Tu	19	3:27	9:33	15:46	21:47	
			4.9	0.1	4.7	0.3	
N	W	20	4:00	10:09	16:21	22:27	
			4.6	0.3	4.5	0.6	
	Th	21	4:40	10:50	17:04	23:12	
			4.3	0.7	4.1	0.9	
	F	22	5:28	11:40	18:02	. . .	
			3.9	1.1	3.7	. . .	
☽	S	23	0:12	6:37	12:50	19:23	
			1.3	3.5	1.5	3.4	
	S	24	1:46	8:24	14:34	21:11	
			1.7	3.2	1.7	3.4	
	M	25	3:47	10:09	16:21	22:37	
			1.6	3.5	1.5	3.8	
P	Tu	26	5:06	11:19	17:27	23:37	
			1.1	4.0	1.0	4.3	
E	W	27	5:58	12:10	18:15	. . .	
			0.6	4.5	0.5	. . .	
	Th	28	0:24	6:40	12:44	18:57	
			4.8	0.2	4.8	0.2	
○	F	29	1:07	7:20	13:32	19:35	
			5.1	—0.1	5.1	0.0	
	S	30	1:47	7:55	14:10	20:10	
			5.3	—0.2	5.2	—0.1	

MAY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	2:24	8:30	14:46	20:47	
			5.2	—0.1	5.1	0.0	
	M	2	3:00	9:04	15:20	21:21	
			5.0	0.0	4.9	0.3	
S	Tu	3	3:35	9:39	15:55	21:58	
			4.8	0.3	4.6	0.6	
	W	4	4:11	10:15	16:32	22:36	
			4.3	0.7	4.3	1.0	
	Th	5	4:50	10:54	17:12	23:17	
			4.0	1.1	3.8	1.3	
	F	6	5:35	11:39	18:04	. . .	
			3.5	1.5	3.4	. . .	
☾	S	7	0:11	6:41	12:43	19:20	
			1.7	3.2	1.8	3.2	
A	S	8	1:40	8:15	14:16	20:51	
			2.0	3.0	2.0	3.2	
	M	9	3:30	9:48	15:54	22:07	
			1.9	3.1	1.9	3.4	
	Tu	10	4:39	10:50	16:52	22:58	
			1.6	3.4	1.6	3.7	
E	W	11	5:22	11:34	17:31	23:40	
			1.3	3.8	1.2	4.1	
	Th	12	5:56	12:10	18:06	. . .	
			0.9	4.1	0.9	. . .	
	F	13	0:17	6:27	12:42	18:39	
			4.4	0.7	4.4	0.7	
	S	14	0:51	6:59	13:14	19:12	
			4.6	0.4	4.6	0.5	
●	S	15	1:24	7:30	13:47	19:43	
			4.8	0.2	4.7	0.3	
	M	16	1:57	8:05	14:20	20:20	
			4.8	0.2	4.8	0.3	
	Tu	17	2:34	8:38	14:55	20:57	
			4.8	0.2	4.7	0.3	
N	W	18	3:10	9:17	15:34	21:38	
			4.7	0.3	4.6	0.5	
	Th	19	3:51	9:58	16:16	22:25	
			4.5	0.5	4.4	0.7	
	F	20	4:38	10:47	17:07	23:17	
			4.1	0.8	4.1	1.0	
	S	21	5:35	11:45	18:09	. . .	
			3.8	1.1	3.9	. . .	
☽ P	S	22	0:24	6:50	12:57	19:28	
			1.3	3.6	1.4	3.7	
	M	23	1:52	8:17	14:21	20:50	
			1.4	3.5	1.4	3.8	
E	Tu	24	3:18	9:38	15:42	22:00	
			1.3	3.7	1.2	4.0	
	W	25	4:27	10:43	16:46	22:58	
			1.0	4.0	1.0	4.3	
	Th	26	5:21	11:37	17:39	23:50	
			0.7	4.3	0.7	4.6	
	F	27	6:08	12:24	18:26	. . .	
			0.5	4.6	0.5	. . .	
	S	28	0:37	6:52	13:07	19:10	
			4.7	0.3	4.7	0.4	
○	S	29	1:20	7:30	13:48	19:50	
			4.8	0.2	4.8	0.4	
	M	30	2:02	8:09	14:27	20:29	
			4.8	0.3	4.7	0.5	
S	Tu	31	2:39	8:45	15:02	21:07	
			4.6	0.4	4.6	0.7	

JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	W	1	3:18	9:21	15:40	21:47	
			4.4	0.6	4.4	0.9	
	Th	2	3:59	10:00	16:20	22:27	
			4.1	0.8	4.1	1.1	
	F	3	4:38	10:40	17:02	23:10	
			3.9	1.1	3.9	1.3	
	S	4	5:25	11:25	17:50	. . .	
			3.6	1.3	3.7	. . .	
A	S	5	0:00	6:21	12:17	18:47	
			1.5	3.4	1.5	3.5	
☾	M	6	1:00	7:25	13:17	19:46	
			1.6	3.3	1.6	3.5	
E	Tu	7	2:05	8:30	14:21	20:45	
			1.6	3.4	1.6	3.6	
	W	8	3:06	9:30	15:20	21:40	
			1.5	3.5	1.5	3.7	
	Th	9	4:00	10:24	16:15	22:33	
			1.3	3.7	1.3	3.9	
	F	10	4:50	11:12	17:06	23:22	
			1.1	3.9	1.1	4.1	
	S	11	5:36	11:56	17:52	. . .	
			0.9	4.1	1.0	. . .	
	S	12	0:08	6:20	12:40	18:38	
			4.3	0.7	4.3	0.7	
●	M	13	0:54	7:02	13:22	19:22	
			4.5	0.5	4.5	0.6	
N	Tu	14	1:38	7:45	14:04	20:07	
			4.6	0.4	4.6	0.5	
	W	15	2:21	8:29	14:46	20:53	
			4.6	0.3	4.6	0.5	
	Th	16	3:07	9:12	15:32	21:41	
			4.5	0.4	4.6	0.5	
P	F	17	3:54	10:00	16:19	22:30	
			4.4	0.5	4.5	0.7	
	S	18	4:55	10:50	17:12	23:24	
			4.3	0.6	4.4	0.8	
	S	19	5:42	11:45	18:10	. . .	
			4.1	0.8	4.3	. . .	
☽ E	M	20	0:25	6:45	12:45	19:10	
			0.9	4.0	0.9	4.2	
	Tu	21	1:27	7:58	13:48	20:12	
			1.0	4.0	1.0	4.1	
	W	22	2:35	8:54	14:53	21:15	
			1.0	3.9	1.1	4.1	
	Th	23	3:39	10:00	16:00	22:15	
			1.0	3.9	1.1	4.1	
	F	24	4:42	11:00	17:02	23:15	
			1.0	4.0	1.1	4.2	
	S	25	5:40	11:57	18:02	. . .	
			0.9	4.1	1.0	. . .	
	S	26	0:12	6:32	12:50	18:55	
			4.2	0.8	4.2	1.0	
○ S	M	27	1:04	7:20	13:36	19:42	
			4.3	0.7	4.3	0.9	
	Tu	28	1:52	8:02	14:19	20:26	
			4.3	0.7	4.3	0.9	
	W	29	2:34	8:41	14:58	21:06	
			4.3	0.7	4.3	0.9	
	Th	30	3:12	9:17	15:36	21:45	
			4.2	0.8	4.3	0.9	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Town Mean Local Civil, for the meridian 18° 25′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator: A, P, moon in apogee or perigee.

JULY.							AUGUST.							SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:52	9:52	16:12	22:20	E	M	1	4:36	10:36	16:50	22:57		Th	1	4:56	10:56	17:11	23:20
			4.1	0.8	4.2	1.0				4.3	0.6	4.5	0.6				4.5	0.4	4.5	0.5
	S	2	4:27	10:27	16:48	22:57		Tu	2	5:07	11:02	17:21	23:30		F	2	5:29	11:32	17:47	. . .
			4.0	0.9	4.1	1.0				4.3	0.6	4.5	0.7				4.3	0.7	4.2	. . .
A	S	3	5:06	11:05	17:25	23:34		W	3	5:39	11:37	17:55	. . .	☾	S	3	0:00	6:00	12:15	18:35
			3.9	1.0	4.1	1.1				4.2	0.7	4.3	. . .				0.8	3.9	1.0	3.9
	M	4	5:46	11:44	18:06	. . .	☾	Th	4	0:14	6:15	12:14	18:33	N	S	4	0:47	7:02	13:15	19:40
			3.8	1.1	4.0	. . .				0.7	4.0	0.8	4.2				1.1	3.5	1.5	3.5
E	Tu	5	0:15	6:30	12:24	18:46		F	5	0:44	6:58	12:58	19:22		M	5	1:58	8:29	14:44	21:24
			1.1	3.8	1.1	4.0				0.9	3.8	1.1	3.9				1.5	3.2	1.8	3.3
☾	W	6	0:57	7:15	13:08	19:32		S	6	1:35	7:55	13:55	20:23		Tu	6	3:45	10:22	16:42	23:08
			1.2	3.7	1.2	3.9				1.2	3.6	1.4	3.6				1.7	3.3	1.7	3.5
	Th	7	1:44	8:06	14:00	20:25		S	7	2:40	9:10	15:15	21:44		W	7	5:30	11:50	18:10	. . .
			1.2	3.6	1.3	3.8				1.4	3.4	1.6	3.5				1.4	3.8	1.2	. . .
	F	8	2:40	9:04	14:58	21:28	N	M	8	4:05	10:42	16:48	23:12		Th	8	0:22	6:37	12:50	19:04
			1.2	3.6	1.4	3.8				1.5	3.4	1.6	3.7				4.0	0.9	4.3	0.6
	S	9	3:40	10:09	16:03	22:27		Tu	9	5:35	12:00	18:09	. . .	P	F	9	1:17	7:24	13:37	19:48
			1.3	3.6	1.4	3.8				1.3	3.7	1.2	. . .	●			4.6	0.4	4.9	0.1
	S	10	4:46	11:12	17:12	23:32		W	10	0:27	6:42	13:02	19:12	E	S	10	2:00	8:05	14:20	20:28
			1.2	3.8	1.3	4.0				4.0	0.9	4.2	0.8				5.0	—0.1	5.3	—0.2
	M	11	5:49	12:12	18:15	. . .	●	Th	11	1:26	7:36	13:52	20:03		S	11	2:39	8:42	14:56	21:05
			1.0	4.0	1.1	. . .				4.4	0.5	4.6	0.4				5.3	—0.3	5.5	—0.4
N	Tu	12	0:32	6:46	13:07	19:13	P	F	12	2:17	8:22	14:38	20:48		M	12	3:15	9:20	15:32	21:40
			4.2	0.8	4.2	0.8				4.7	0.2	5.0	0.1				5.4	—0.4	5.5	—0.4
●	W	13	1:28	7:38	13:58	20:05		S	13	3:00	9:04	15:20	21:30		Tu	13	3:52	9:55	16:09	22:17
			4.4	0.5	4.5	0.6				5.0	—0.1	5.2	—0.1				5.3	—0.3	5.4	—0.2
	Th	14	2:20	8:27	14:45	20:55	E	S	14	3:40	9:44	16:00	22:10		W	14	4:30	10:31	16:47	22:55
			4.6	0.4	4.7	0.4				5.1	—0.2	5.3	—0.1				5.1	0.0	5.0	0.2
P	F	15	3:07	9:12	15:31	21:41		M	15	4:20	10:24	16:38	22:50		Th	15	5:07	11:10	17:25	23:33
			4.7	0.2	4.8	0.3				5.1	—0.2	5.3	0.0				4.7	0.4	4.6	0.6
	S	16	3:54	9:58	16:16	22:28		Tu	16	5:00	11:02	17:18	23:28	☽	F	16	5:49	11:50	18:07	. . .
			4.7	0.2	4.9	0.3				5.0	0.0	5.0	0.2				4.2	0.9	4.0	. . .
	S	17	4:40	10:42	17:01	23:12		W	17	5:42	11:42	18:00	. . .	S	S	17	0:15	6:36	12:40	19:02
			4.7	0.2	4.9	0.3				4.7	0.3	4.7	. . .				1.1	3.7	1.5	3.5
E	M	18	5:27	11:30	17:47	. . .	☽	Th	18	0:09	6:25	12:27	18:44		S	18	1:10	7:50	13:56	20:36
			4.6	0.3	4.8	. . .				0.5	4.3	0.8	4.2				1.6	3.2	1.9	3.1
☽	Tu	19	0:00	6:17	12:17	18:36		F	19	0:56	7:16	13:17	19:38		M	19	3:08	9:44	16:27	22:35
			0.5	4.5	0.6	4.5				1.0	3.9	1.3	3.7				2.0	3.0	2.1	3.0
	W	20	0:50	7:06	13:06	19:27		S	20	1:55	8:24	14:27	20:56		Tu	20	5:22	11:30	18:00	. . .
			0.7	4.2	0.8	4.3				1.5	3.4	1.7	3.3				1.9	3.2	1.7	. . .
	Th	21	1:43	8:05	14:03	20:25	S	S	21	3:30	10:02	16:23	22:37		W	21	0:00	6:24	12:27	18:50
			1.0	3.9	1.2	4.0				1.8	3.2	1.9	3.2				3.4	1.5	3.7	1.3
	F	22	2:48	9:12	15:11	21:33		M	22	5:22	11:39	18:05	. . .		Th	22	0:47	7:03	13:06	19:21
			1.2	3.7	1.4	3.7				1.7	3.3	1.7	. . .				3.9	1.1	4.0	1.0
	S	23	4:02	10:25	16:32	22:47		Tu	23	0:02	6:35	12:44	19:04	A	F	23	1:25	7:32	13:38	19:47
			1.4	3.6	1.6	3.6				3.5	1.4	3.6	1.4				4.2	0.8	4.4	0.6
S	S	24	5:21	11:40	17:52	. . .		W	24	1:00	7:23	13:32	19:46	○	S	24	1:54	7:55	14:02	20:09
			1.4	3.6	1.5	. . .				3.8	1.1	4.0	1.1	E			4.5	0.6	4.7	0.4
	M	25	0:00	6:27	12:43	18:56		Th	25	1:46	7:58	14:08	20:18		S	25	2:17	8:16	14:27	20:30
			3.8	1.2	3.8	1.3				4.1	0.9	4.3	0.8				4.6	0.4	4.8	0.3
	Tu	26	1:00	7:20	13:35	19:45	○	F	26	2:20	8:26	14:37	20:44		M	26	2:38	8:37	14:50	20:51
			3.9	1.1	4.0	1.1				4.4	0.7	4.5	0.6				4.8	0.2	4.9	0.2
○	W	27	1:51	8:02	14:17	20:27	A	S	27	2:50	8:50	15:02	21:07		Tu	27	3:02	9:00	15:13	21:16
			4.1	0.9	4.2	0.9				4.5	0.5	4.7	0.5				4.8	0.2	4.9	0.1
	Th	28	2:32	8:39	14:53	21:02	E	S	28	3:12	9:12	15:26	21:30		W	28	3:16	9:24	15:37	21:42
			4.2	0.8	4.3	0.8				4.6	0.4	4.8	0.3				4.8	0.1	4.9	0.1
	F	29	3:07	9:10	15:25	21:32		M	29	3:36	9:35	15:49	21:51		Th	29	3:54	9:51	16:05	22:12
			4.3	0.7	4.3	0.7				4.7	0.3	4.8	0.3				4.7	0.2	4.8	0.2
A	S	30	3:37	9:40	15:55	22:02		Tu	30	4:00	9:57	16:14	22:20		F	30	4:22	10:25	16:37	22:47
			4.3	0.6	4.5	0.7				4.7	0.3	4.8	0.3				4.6	0.4	4.5	0.5
	S	31	4:07	10:08	16:22	22:29		W	31	4:27	10:25	16:40	22:48							
			4.3	0.6	4.5	0.6				4.6	0.3	4.7	0.3							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Town Mean Local Civil for the meridian 18° 25′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	5:56	11:03	17:15	23:27	
			4.3	0.7	4.1	0.8	
N ☾	S	2	5:40	11:50	18:06	. . .	
			3.9	1.1	3.7	. . .	
	M	3	0:20	6:39	12:55	19:23	
			1.3	3.5	1.5	3.3	
	Tu	4	1:40	8:18	14:40	21:24	
			1.7	3.2	1.8	3.2	
	W	5	3:43	10:16	16:45	23:03	
			1.8	3.4	1.6	3.6	
	Th	6	5:18	11:32	17:55	. . .	
			1.3	4.0	1.0	. . .	
	F	7	0:08	6:15	12:27	18:42	
			4.2	0.7	4.5	0.4	
P E	S	8	0:56	7:00	13:10	19:23	
			4.7	0.2	5.0	0.0	
●	S	9	1:35	7:37	13:50	20:00	
			5.1	—0.1	5.4	—0.3	
	M	10	2:12	8:15	14:28	20:37	
			5.3	—0.3	5.5	—0.4	
	Tu	11	2:49	8:51	15:05	21:10	
			5.4	—0.3	5.4	—0.3	
	W	12	3:25	9:28	15:40	21:47	
			5.3	—0.1	5.2	—0.1	
	Th	13	4:01	10:04	16:18	22:24	
			5.0	0.2	4.8	0.3	
S	F	14	4:40	10:42	16:57	23:02	
			4.6	0.5	4.3	0.8	
	S	15	5:20	11:24	17:41	23:50	
			4.1	1.1	3.8	1.3	
☽	S	16	6:10	12:14	18:40	. . .	
			3.6	1.6	3.3	. . .	
	M	17	0:49	7:27	13:48	20:23	
			1.8	3.2	2.0	3.0	
	Tu	18	2:45	9:20	16:08	22:16	
			2.1	3.0	2.0	3.1	
	W	19	4:44	10:50	17:24	23:28	
			1.9	3.4	1.6	3.5	
A	Th	20	5:42	11:42	18:07	. . .	
			1.5	3.7	1.3	. . .	
	F	21	0:12	6:20	12:20	18:37	
			3.8	1.2	4.1	0.9	
E	S	22	0:45	6:47	12:52	19:02	
			4.1	0.9	4.4	0.7	
	S	23	1:12	7:12	13:21	19:26	
			4.4	0.6	4.6	0.4	
○	M	24	1:39	7:35	13:47	19:50	
			4.6	0.5	4.8	0.3	
	Tu	25	2:04	8:00	14:12	20:16	
			4.7	0.3	4.8	0.2	
	W	26	2:30	8:27	14:40	20:43	
			4.8	0.3	4.8	0.2	
	Th	27	2:57	8:56	15:09	21:14	
			4.8	0.3	4.8	0.2	
	F	28	3:27	9:27	15:40	21:47	
			4.7	0.3	4.6	0.4	
N	S	29	4:00	10:05	16:18	22:27	
			4.5	0.6	4.3	0.6	
	S	30	4:42	10:50	17:02	23:15	
			4.2	0.9	4.0	1.0	
	M	31	5:32	11:44	18:05	. . .	
			3.8	1.2	3.6	. . .	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
☾	Tu	1	0:16	6:45	13:00	19:30	
			1.4	3.5	1.5	3.3	
	W	2	1:45	8:21	14:51	21:20	
			1.7	3.4	1.7	3.4	
	Th	3	3:28	9:53	16:22	22:40	
			1.6	3.7	1.3	3.8	
E	F	4	4:47	11:00	17:23	23:40	
			1.2	4.2	0.8	4.2	
P	S	5	5:40	11:52	18:11	. . .	
			0.7	4.6	0.4	. . .	
	S	6	0:25	6:27	12:39	18:53	
			4.7	0.3	5.0	0.1	
●	M	7	1:07	7:08	13:20	19:31	
			4.9	0.1	5.2	—0.1	
	Tu	8	1:47	7:47	14:02	20:09	
			5.1	0.0	5.2	—0.1	
	W	9	2:24	8:28	14:42	20:47	
			5.1	0.0	5.1	0.0	
	Th	10	3:03	9:05	15:18	21:22	
			5.0	0.2	4.8	0.2	
S	F	11	3:40	9:45	15:57	22:02	
			4.7	0.5	4.5	0.5	
	S	12	4:20	10:27	16:39	22:44	
			4.4	0.9	4.1	0.9	
	S	13	5:03	11:10	17:27	23:30	
			4.0	1.2	3.7	1.3	
	M	14	5:57	12:05	18:32	. . .	
			3.6	1.6	3.3	. . .	
☽	Tu	15	0:32	7:05	13:27	19:55	
			1.7	3.3	1.8	3.1	
	W	16	1:56	8:28	15:02	21:22	
			1.9	3.3	1.8	3.2	
A	Th	17	3:25	9:40	16:14	22:28	
			1.8	3.4	1.6	3.4	
E	F	18	4:27	10:35	17:02	23:15	
			1.6	3.7	1.3	3.7	
	S	19	5:12	11:20	17:39	23:53	
			1.4	4.0	1.1	3.9	
	S	20	5:48	11:57	18:12	. . .	
			1.1	4.2	0.8	. . .	
	M	21	0:27	6:22	12:34	18:43	
			4.2	0.9	4.4	0.6	
	Tu	22	0:59	6:55	13:08	19:14	
			4.3	0.7	4.5	0.5	
○	W	23	1:30	7:26	13:41	19:45	
			4.5	0.6	4.6	0.4	
	Th	24	2:04	8:02	14:16	20:20	
			4.6	0.5	4.6	0.3	
N	F	25	2:38	8:38	14:52	20:58	
			4.6	0.5	4.5	0.4	
	S	26	3:16	9:19	15:32	21:38	
			4.5	0.6	4.4	0.5	
	S	27	3:58	10:04	16:17	22:25	
			4.4	0.7	4.2	0.7	
	M ●	28	4:46	10:54	17:10	23:17	
			4.2	0.9	3.9	1.0	
	Tu	29	5:42	11:54	18:14	. . .	
			4.0	1.1	3.7	. . .	
☾	W	30	0:21	6:48	13:06	19:32	
			1.2	3.9	1.3	3.6	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	1:34	8:04	14:28	20:51	
			1.3	3.8	1.3	3.7	
E	F	2	2:50	9:15	15:42	22:00	
			1.3	4.0	1.1	3.9	
P	S	3	4:00	10:18	16:43	23:00	
			1.1	4.2	0.9	4.1	
	S	4	5:00	11:15	17:37	23:54	
			0.9	4.4	0.7	4.4	
	M	5	5:55	12:07	18:25	. . .	
			0.9	4.6	0.5	. . .	
	Tu	6	0:42	6:44	12:55	19:09	
			4.5	0.6	4.7	0.3	
●	W	7	1:26	7:29	13:41	19:52	
			4.6	0.5	4.7	0.3	
S	Th	8	2:08	8:12	14:24	20:31	
			4.7	0.5	4.6	0.4	
	F	9	2:50	8:56	15:06	21:13	
			4.6	0.6	4.5	0.5	
	S	10	3:30	9:39	15:48	21:52	
			4.5	0.8	4.3	0.7	
	S	11	4:12	10:21	16:32	22:35	
			4.3	1.0	4.0	1.0	
	M	12	4:56	11:05	17:18	23:18	
			4.1	1.2	3.8	1.2	
	Tu	13	5:43	11:54	18:10	. . .	
			3.9	1.4	3.6	. . .	
☽	W	14	0:07	6:35	12:48	19:07	
			1.4	3.7	1.5	3.5	
A E	Th	15	1:00	7:26	13:44	20:04	
			1.5	3.6	1.5	3.4	
	F	16	1:56	8:20	14:40	21:02	
			1.6	3.6	1.5	3.5	
	S	17	2:52	9:13	15:35	21:57	
			1.6	3.7	1.4	3.5	
	S	18	3:47	10:07	16:26	22:49	
			1.5	3.8	1.3	3.7	
	M	19	4:40	10:57	17:15	23:36	
			1.4	3.9	1.1	3.8	
	Tu	20	5:30	11:46	18:00	. . .	
			1.2	4.0	1.0	. . .	
	W	21	0:22	6:18	12:35	18:45	
			4.0	1.0	4.2	0.8	
○	Th	22	1:07	7:05	13:22	19:29	
			4.2	0.9	4.3	0.6	
N	F	23	1:49	7:51	14:05	20:12	
			4.3	0.8	4.4	0.5	
	S	24	2:30	8:36	14:50	20:54	
			4.5	0.7	4.5	0.5	
	S	25	3:14	9:23	15:36	21:40	
			4.5	0.6	4.4	0.5	
	M	26	4:00	10:10	16:24	22:27	
			4.5	0.6	4.3	0.5	
P	Tu	27	4:48	10:59	17:15	23:17	
			4.5	0.7	4.2	0.7	
	W	28	5:39	11:52	18:10	. . .	
			4.4	0.7	4.1	. . .	
E ☾	Th	29	0:12	6:34	12:48	19:08	
			0.8	4.3	0.8	4.1	
	F	30	1:08	7:30	13:48	20:09	
			0.9	4.2	1.0	4.0	
	S	31	2:06	8:30	14:52	21:14	
			1.0	4.1	1.1	3.9	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 2.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cape Town Mean Local Civil, for the meridian 18° 25′ E.; 0^h is midnight, 12^h is noon: all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

● new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| JANUARY. | | |

APRIL.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	2:53	8:38	15:15	20:55	
			12.8	—1.1	12.4	—1.0	
	S	2	3:35	9:17	15:56	21:36	
			12.5	—0.7	12.1	—0.7	
	S	3	4:18	9:57	16:37	22:18	
			11.8	—0.1	11.4	—0.1	
	M	4	5:00	10:37	17:18	23:04	
			10.9	0.8	10.5	1.1	
	Tu	5	5:47	11:21	18:05	23:56	
			9.8	1.8	9.5	2.2	
S	W	6	6:38	12:15	18:58	. . .	
			8.8	2.9	8.6	. . .	
☾	Th	7	1:01	7:40	13:30	20:05	
			8.1	7.8	8.8	7.8	
	F	8	2:28	9:05	15:05	21:32	
			3.8	7.3	4.2	7.6	
	S	9	3:55	10:36	16:27	22:52	
			3.8	7.4	3.9	8.0	
A	S	10	5:00	11:40	17:23	23:52	
			3.4	8.0	3.4	8.6	
	M	11	5:45	12:24	18:00	. . .	
			2.8	8.7	2.8	. . .	
	Tu	12	0:33	6:17	13:00	18:30	
			9.3	2.2	9.4	2.1	
E	W	13	1:10	6:47	13:30	19:00	
			9.9	1.6	10.0	1.5	
	Th	14	1:42	7:15	13:58	19:28	
			10.3	1.0	10.4	0.8	
●	F	15	2:10	7:48	14:27	19:57	
			10.6	0.5	10.6	0.3	
	S	16	2:40	8:13	14:55	20:30	
			10.7	0.1	10.7	0.0	
	S	17	3:11	8:47	15:25	21:05	
			10.7	—0.1	10.7	—0.1	
	M	18	3:42	9:20	15:58	21:44	
			10.5	0.0	10.5	0.0	
	Tu	19	4:17	10:00	16:34	22:27	
			10.2	0.4	10.2	0.4	
N	W	20	4:57	10:42	17:16	23:14	
			9.8	1.0	9.7	1.1	
	Th	21	5:45	11:32	18:07	. . .	
			9.3	1.8	9.2	. . .	
	F	22	0:14	6:43	12:35	19:10	
			1.8	8.7	2.6	8.7	
☽	S	23	1:30	7:58	14:02	20:32	
			2.5	8.3	3.1	8.5	
	S	24	3:00	9:28	15:34	22:00	
			2.5	8.3	2.9	8.9	
	M	25	4:14	10:50	16:46	23:16	
			2.0	9.0	2.1	9.8	
P	Tu	26	5:18	11:53	17:40	. . .	
			1.2	10.0	1.1	. . .	
E	W	27	0:14	6:08	12:45	18:29	
			10.8	0.4	11.0	0.3	
	Th	28	1:05	6:54	13:31	19:12	
			11.6	—0.2	11.7	—0.3	
○	F	29	1:52	7:35	14:14	19:55	
			12.0	—0.5	12.1	—0.6	
	S	30	2:36	8:17	14:55	20:37	
			12.1	—0.5	12.1	—0.6	

MAY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	3:18	8:55	15:37	21:15	
			11.9	—0.2	11.8	—0.2	
	M	2	4:00	9:32	16:18	21:56	
			11.3	0.4	11.2	0.4	
S	Tu	● 3	4:42	10:10	16:58	22:40	
			10.3	1.1	10.4	1.2	
	W	4	5:26	10:50	17:42	23:25	
			9.5	2.0	9.5	2.1	
	Th	5	6:12	11:35	18:28	. . .	
			8.6	2.9	8.6	. . .	
	F	6	0:20	7:04	12:32	19:23	
			3.0	7.8	3.7	8.0	
☾	S	7	1:32	8:08	13:57	20:32	
			3.7	7.3	4.2	7.6	
A	S	8	2:53	9:27	15:20	21:47	
			3.8	7.2	4.1	7.7	
	M	9	3:56	10:36	16:27	22:53	
			3.6	7.6	3.7	8.1	
	Tu	10	4:50	11:28	17:09	23:43	
			3.1	8.2	3.1	8.7	
E	W	11	5:27	12:10	17:47	. . .	
			2.4	8.9	2.3	. . .	
	Th	12	0:25	6:02	12:47	18:22	
			9.3	1.7	9.6	1.6	
	F	13	1:03	6:38	13:22	18:57	
			9.9	1.0	10.2	0.8	
	S	14	1:39	7:12	13:56	19:32	
			10.3	0.5	10.6	0.2	
●	S	15	2:15	7:48	14:30	20:10	
			10.6	0.1	10.9	—0.2	
	M	16	2:50	8:27	15:08	20:49	
			10.7	—0.1	11.0	—0.3	
	Tu	17	3:28	9:05	15:46	21:30	
			10.6	0.0	10.8	—0.2	
N	W	18	4:09	9:45	16:27	22:15	
			10.4	0.3	10.5	0.2	
	Th	19	4:52	10:30	17:12	23:07	
			10.0	0.9	10.1	0.8	
	F	20	5:42	11:24	18:04	. . .	
			9.5	1.6	9.6	. . .	
	S	21	0:07	6:40	12:27	19:05	
			1.5	9.1	2.3	9.2	
☽	S	22	1:20	7:47	13:47	20:18	
P			2.1	8.7	2.8	9.0	
	M	23	2:40	9:06	15:10	21:35	
			2.2	8.7	2.7	9.1	
E	Tu	24	3:50	10:22	16:24	22:50	
			1.8	9.0	2.1	9.6	
	W	25	4:56	11:27	17:20	23:52	
			1.4	9.8	1.4	10.3	
	Th	26	5:47	12:24	18:10	. . .	
			0.9	10.5	0.8	. . .	
	F	27	0:46	6:34	13:12	18:57	
			10.9	0.5	11.1	0.3	
	S	28	1:36	7:16	13:56	19:38	
			11.3	0.3	11.5	0.1	
○	S	29	2:22	7:51	14:40	20:20	
			11.4	0.3	11.6	0.1	
	M	30	3:05	8:35	15:18	20:59	
			11.2	0.5	11.3	0.4	
S	Tu	31	3:45	9:12	16:00	21:37	
			10.7	0.9	10.8	0.8	

JUNE.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	W	1	4:26	9:47	16:39	22:16	
			10.0	1.4	10.3	1.4	
	Th	2	5:05	10:22	17:17	22:55	
			9.3	2.0	9.6	2.0	
	F	3	5:45	11:00	17:57	23:40	
			8.6	2.6	8.9	2.6	
	S	4	6:26	11:46	18:40	. . .	
			8.1	3.2	8.3	. . .	
A	S	5	0:34	7:12	12:45	19:30	
			3.2	7.7	3.7	7.9	
☾	M	6	1:36	8:05	13:56	20:28	
			3.5	7.5	3.9	7.7	
E	Tu	7	2:42	9:10	15:10	21:34	
			3.5	7.5	3.7	7.8	
	W	8	3:43	10:14	16:12	22:37	
			3.2	7.9	3.3	8.1	
	Th	9	4:36	11:11	17:00	23:32	
			2.7	8.5	2.5	8.7	
	F	10	5:21	12:00	17:44	. . .	
			2.0	9.2	1.7	. . .	
	S	11	0:22	6:03	12:46	18:27	
			9.4	1.3	9.9	0.9	
	S	12	1:09	6:45	13:28	19:10	
			10.0	0.6	10.6	0.3	
●	M	13	1:52	7:27	14:10	19:52	
			10.5	0.1	11.0	—0.2	
N	Tu	14	2:34	8:08	14:52	20:36	
			10.8	—0.1	11.3	—0.5	
	W	15	3:17	8:52	15:35	21:20	
			10.9	—0.1	11.3	—0.5	
	Th	16	4:00	9:35	16:20	22:08	
			10.8	0.1	11.2	—0.2	
P	F	17	4:47	10:22	17:06	23:00	
			10.5	0.6	10.8	0.3	
	S	18	5:36	11:15	17:57	23:56	
			10.1	1.2	10.4	1.0	
	S	19	6:30	12:16	18:52	. . .	
			9.7	1.8	9.9	. . .	
☽	M	20	0:13	7:29	13:28	19:57	
E			1.6	9.2	2.3	9.4	
	Tu	21	2:13	8:38	14:44	21:09	
			2.0	9.0	2.5	9.2	
	W	22	3:24	9:50	15:56	22:25	
			2.1	9.0	2.3	9.3	
	Th	23	4:31	11:02	17:02	23:34	
			1.8	9.4	1.9	9.6	
	F	24	5:29	12:02	17:55	. . .	
			1.6	10.0	1.4	. . .	
	S	25	0:34	6:18	12:55	18:42	
			10.1	1.3	10.5	1.1	
	S	26	1:24	7:02	13:42	19:28	
			10.5	1.1	11.0	0.9	
S	M	27	2:10	7:42	14:25	20:06	
○			10.7	1.0	11.2	0.8	
	Tu	28	2:53	8:19	15:05	20:44	
			10.7	1.1	11.1	0.9	
	W	29	3:31	8:55	15:42	21:18	
			10.4	1.3	10.8	1.2	
	Th	30	4:07	9:25	16:18	21:51	
			9.9	1.5	10.3	1.4	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. In order to refer the above heights to the plane used upon the Portguese Charts of Lisbon Harbor, add 1.8 feet to each. A foot is about three-tenths of a meter. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Lisbon Mean Local Civil, for the meridian 9° 6′ W.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	4:40 9.4	9:58 1.8	16:52 9.8	22:25 1.7
	S	2	5:18 8.9	10:32 2.2	17:25 9.2	23:03 2.0
A	S	3	5:45 8.5	11:09 2.5	18:00 8.7	23:42 2.4
E	M	4	6:19 8.3	11:52 2.9	18:34 8.3	. . . . . .
☾	Tu	5	0:30 2.8	7:00 8.0	12:47 3.2	19:18 8.1
	W	6	1:27 3.1	7:52 7.9	13:55 3.4	20:14 7.9
	Th	7	2:32 3.1	8:56 8.0	15:07 3.2	21:24 8.0
	F	8	3:40 3.0	10:10 8.2	16:15 2.7	22:41 8.3
	S	9	4:41 2.3	11:17 8.8	17:10 2.0	23:47 9.0
	S	10	5:34 1.6	12:15 9.7	18:02 1.1	. . . . . .
N	M	11	0:42 9.8	6:24 0.8	13:07 10.5	18:50 0.3
	Tu	12	1:33 10.5	7:10 0.2	13:53 11.5	19:38 —0.3
●	W	13	2:20 11.0	7:54 —0.2	14:38 11.7	20:23 —0.7
	Th	14	3:04 11.3	8:38 —0.4	15:24 11.9	21:08 —0.9
P	F	15	3:49 11.4	9:25 —0.3	16:07 11.9	21:55 —0.7
	S	16	4:35 11.2	10:10 0.0	16:53 11.6	22:54 —0.2
	S	17	5:22 10.8	11:00 0.5	17:41 11.1	23:37 0.5
E	M	18	6:10 10.2	11:56 1.2	18:33 10.4	. . . . . .
☽	Tu	19	0:35 1.3	7:05 9.7	13:00 1.8	19:31 9.7
	W	20	1:44 2.0	8:07 9.1	14:18 2.5	20:40 9.0
	Th	21	2:56 2.5	9:20 8.7	15:32 2.6	22:00 8.8
	F	22	4:10 2.5	10:40 8.9	16:45 2.4	23:19 9.0
	S	23	5:16 2.3	11:47 9.4	17:46 2.0	. . . . . .
S	S	24	0:22 9.5	6:07 2.0	12:42 10.0	18:35 1.7
	M	25	1:15 10.0	6:52 1.7	13:30 10.6	19:18 1.4
	Tu	26	2:00 10.3	7:30 1.5	14:11 10.9	19:55 1.3
○	W	27	2:40 10.4	8:03 1.4	14:49 10.9	20:27 1.2
	Th	28	3:14 10.3	8:36 1.4	15:23 10.6	20:58 1.2
	F	29	3:45 10.0	9:04 1.4	15:56 10.4	21:25 1.2
A	S	30	4:12 9.7	9:32 1.4	16:22 10.0	21:52 1.3
	S	31	4:38 9.3	10:01 1.5	16:50 9.6	22:25 1.4

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	5:04 9.0	10:35 1.7	17:17 9.2	23:00 1.6
	Tu	2	5:32 8.8	11:12 2.0	17:49 8.8	23:42 2.0
	W	3	6:08 8.7	12:00 2.4	18:26 8.5	. . . . . .
☾	Th	4	0:30 2.5	6:55 8.4	12:57 2.8	19:20 8.3
	F	5	1:34 2.9	7:56 8.2	14:11 3.1	20:30 8.0
	S	6	2:49 3.1	9:15 8.2	15:32 2.9	21:55 8.1
	S	7	4:07 2.7	10:40 8.6	16:44 2.2	23:18 8.7
N	M	8	5:10 2.0	11:50 9.5	17:43 1.2	. . . . . .
	Tu	9	0:23 9.7	6:05 1.1	12:46 10.5	18:34 0.3
	W	10	1:15 10.6	6:55 0.2	13:36 11.5	19:22 —0.5
●	Th	11	2:03 11.3	7:40 —0.4	14:22 12.2	20:08 —1.0
P	F	12	2:48 11.8	8:25 —0.8	15:06 12.5	20:52 —1.2
	S	13	3:32 12.0	9:10 —0.9	15:50 12.5	21:36 —1.1
E	S	14	4:14 11.8	9:54 —0.7	16:35 12.2	22:20 —0.6
	M	15	5:00 11.4	10:40 —0.1	17:20 11.5	23:10 0.2
	Tu	16	5:46 10.6	11:30 0.8	18:10 10.5	. . . . . .
	W	17	0:04 1.2	6:37 9.8	12:32 1.7	19:06 9.6
☽	Th	18	1:08 2.2	7:37 9.0	13:45 2.5	20:15 8.8
	F	19	2:26 2.9	8:52 8.5	15:10 3.0	21:41 8.3
	S	20	3:50 3.2	10:16 8.5	16:29 2.9	23:07 8.5
S	S	21	5:05 2.9	11:30 9.0	17:37 2.5	. . . . . .
	M	22	0:12 9.0	5:57 2.5	12:27 9.7	18:26 2.1
	Tu	23	1:03 9.6	6:42 2.1	13:14 10.2	19:07 1.8
	W	24	1:45 10.0	7:17 1.8	13:54 10.7	19:39 1.5
	Th	25	2:20 10.3	7:47 1.5	14:37 10.8	20:05 1.0
○	F	26	2:50 10.4	8:12 1.2	15:00 10.8	20:31 1.0
A	S	27	3:17 10.3	8:38 1.1	15:25 10.5	20:56 0.9
E	S	28	3:40 10.0	9:04 0.9	15:51 10.2	21:22 0.8
	M	29	4:03 9.8	9:32 0.9	16:17 9.9	21:50 0.8
	Tu	30	4:28 9.5	10:05 1.0	16:40 9.5	22:25 1.0
	W	31	4:54 9.3	10:41 1.3	17:12 9.2	23:05 1.5

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	5:30 9.1	11:25 1.8	17:50 8.9	23:50 2.1
	F	2	6:14 8.7	12:19 2.4	18:42 8.5	. . . . . .
☾	S	3	0:50 2.7	7:14 8.3	13:32 2.9	19:52 8.1
N	S	4	2:10 3.2	8:35 8.1	15:00 3.0	21:27 8.0
	M	5	3:38 3.0	10:10 8.4	16:24 2.4	22:57 8.6
	Tu	6	4:51 2.2	11:27 9.4	17:26 1.3	. . . . . .
	W	7	0:05 9.7	5:49 1.2	12:26 10.6	18:17 0.2
	Th	8	0:58 10.8	6:38 0.2	13:17 11.7	19:06 —0.4
P ●	F	9	1:44 11.7	7:25 —0.7	14:03 12.4	19:50 —1.2
E	S	10	2:29 12.2	8:08 —1.1	14:47 12.8	20:32 —1.3
	S	11	3:10 12.4	8:50 —1.3	15:30 12.8	21:15 —1.3
	M	12	3:52 12.2	9:33 —1.0	16:14 12.3	21:56 —0.7
	Tu	13	4:35 11.7	10:17 —0.4	16:58 11.5	22:41 0.2
	W	14	5:20 10.9	11:05 0.5	17:46 10.4	23:31 1.3
	Th	15	6:10 9.9	12:02 1.7	18:41 9.4	. . . . . .
☽	F	16	0:30 2.5	7:07 9.0	13:14 2.7	19:49 8.4
S	S	17	1:52 3.4	8:22 8.3	14:46 3.3	21:18 7.9
	S	18	3:27 3.6	9:49 8.2	16:11 3.2	22:47 8.0
	M	19	4:45 3.3	11:09 8.6	17:20 2.8	23:54 8.6
	Tu	20	5:44 2.9	12:07 9.2	18:09 2.4	. . . . . .
	W	21	0:42 9.3	6:24 2.4	12:51 9.9	18:44 2.0
	Th	22	1:20 9.8	6:55 1.9	13:30 10.4	19:12 1.5
A	F	23	1:52 10.2	7:21 1.5	14:02 10.6	19:38 1.2
○ E	S	24	2:19 10.5	7:46 1.1	14:30 10.7	20:00 0.8
	S	25	2:45 10.4	8:10 0.8	14:55 10.6	20:25 0.6
	M	26	3:08 10.3	8:39 0.5	15:20 10.3	20:52 0.4
	Tu	27	3:33 10.2	9:05 0.4	15:45 10.1	21:22 0.4
	W	28	3:58 10.0	9:40 0.5	16:12 9.8	21:58 0.7
	Th	29	4:27 9.7	10:20 0.9	16:46 9.5	22:37 1.2
	F	30	5:05 9.4	11:00 1.3	17:28 9.1	23:20 1.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. In order to refer the above heights to the plane used upon the Portuguese Charts of Lisbon Harbor, add 1.8 feet to each; a foot is about three-tenths of a meter. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Lisbon Mean Local Civil, for the meridian 9° 6′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			OCTOBER.			
	S	1	5:49 8.9	11:54 2.0	18:20 8.6	. . . . . .
N ☾	S	2	0:17 2.6	6:47 8.5	13:06 2.7	19:32 8.1
	M	3	1:38 3.2	8:08 8.2	14:37 2.9	21:06 8.0
	Tu	4	3:15 3.2	9:45 8.4	16:02 2.4	22:38 8.6
	W	5	4:35 2.3	11:05 9.4	17:08 1.8	23:45 9.7
	Th	6	5:30 1.3	12:07 10.6	18:00 0.3	. . . . . .
	F	7	0:39 10.8	6:20 0.2	12:57 11.7	18:47 —0.6
P E	S	8	1:24 11.7	7:05 —0.7	13:42 12.4	19:30 —1.1
●	S	9	2:06 12.3	7:50 —1.2	14:27 —2.7	20:12 —1.8
	M	10	2:49 12.5	8:30 —1.3	15:10 12.6	20:51 —1.1
	Tu	11	3:30 12.3	9:12 —1.0	15:54 12.1	21:32 —0.5
	W	12	4:13 11.8	9:54 0.4	16:38 11.2	22:12 0.4
	Th	13	4:57 10.9	10:40 0.6	17:25 10.2	23:00 1.4
S	F	14	5:45 9.9	11:34 1.7	18:18 9.1	23:50 2.6
	S	15	6:40 9.0	12:40 2.8	19:21 8.2	. . . . . .
☽	S	16	1:08 3.6	7:47 8.2	14:10 3.5	20:45 7.6
	M	17	2:49 4.0	9:10 7.9	15:40 3.5	22:15 7.7
	Tu	18	4:14 3.7	10:31 8.2	16:48 3.2	23:22 8.2
	W	19	5:15 3.2	11:35 8.7	17:37 2.7	. . . . . .
A	Th	20	0:09 8.8	5:54 2.7	12:20 9.3	18:11 2.2
	F	21	0:45 9.4	6:23 2.2	12:57 9.9	18:36 1.7
E	S	22	1:17 10.0	6:50 1.6	13:30 10.2	19:02 1.2
	S	23	1:48 10.3	7:16 1.1	14:00 10.4	19:28 0.7
○	M	24	2:12 10.5	7:43 0.6	14:27 10.5	19:57 0.4
	Tu	25	2:40 10.5	8:12 0.3	14:54 10.4	20:27 0.2
	W	26	3:08 10.5	8:45 0.0	15:23 10.2	21:00 0.2
	Th	27	3:38 10.3	9:21 0.1	15:55 10.0	21:37 0.5
	F	28	4:11 10.1	10:02 0.5	16:32 9.7	22:17 1.0
N	S	29	4:50 9.7	10:46 1.0	17:17 9.2	23:00 1.6
	S	30	5:37 9.2	11:40 1.7	18:10 8.7	. . . . . .
☾	M	31	0:00 2.4	6:36 8.7	12:50 2.4	19:20 8.3

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			NOVEMBER.			
	Tu	1	1:17 3.1	7:52 8.4	14:18 2.7	20:47 8.2
	W	2	2:50 3.1	9:20 8.6	15:39 2.3	22:12 8.7
	Th	3	4:12 2.4	10:40 9.4	16:47 1.5	23:20 9.6
E	F	4	5:11 1.4	11:43 10.4	17:40 0.6	. . . . . .
P	S	5	0:16 10.6	6:00 0.5	12:36 11.3	18:26 —0.2
	S	6	1:04 11.5	6:47 —0.3	13:25 11.9	19:10 —0.6
●	M	7	1:47 12.1	7:30 —0.8	14:10 12.2	19:52 —0.7
	Tu	8	2:30 12.3	8:13 —0.9	14:54 12.1	20:32 —0.5
	W	9	3:12 12.1	8:56 —0.7	15:37 11.6	21:12 —0.1
	Th	10	3:55 11.6	9:35 —0.1	16:20 10.9	21:51 0.6
S	F	11	4:38 11.0	10:20 0.7	17:05 10.0	22:32 1.5
	S	12	5:23 10.0	11:07 1.6	17:55 9.0	23:20 2.5
	S	13	6:12 9.1	12:04 2.6	18:50 8.2	. . . . . .
☽	M	14	0:20 3.4	7:09 8.3	13:16 3.4	19:55 7.6
	Tu	15	1:43 4.1	8:17 7.8	14:42 3.7	21:12 7.4
	W	16	3:12 4.1	9:35 7.8	15:51 3.6	22:25 7.7
A	Th	17	4:20 3.7	10:42 8.1	16:44 3.2	23:20 8.2
E	F	18	5:08 3.2	11:35 8.6	17:24 2.7	. . . . . .
	S	19	0:02 8.8	5:42 2.6	12:17 9.1	17:55 2.0
	S	20	0:38 9.4	6:14 1.9	12:54 9.6	18:28 1.4
	M	21	1:12 10.0	6:46 1.2	13:27 10.0	19:00 0.9
	Tu	22	1:44 10.4	7:18 0.6	14:00 10.3	19:31 0.4
○	W	23	2:17 10.7	7:52 0.1	14:34 10.4	20:07 0.1
	Th	24	2:52 10.8	8:29 —0.1	15:10 10.4	20:43 0.1
N	F	25	3:25 10.8	9:08 —0.2	15:45 10.3	21:22 0.2
	S	26	4:03 10.5	9:50 0.0	16:26 10.0	22:10 0.7
	S	27	4:45 10.2	10:37 0.5	17:17 9.6	22:52 1.3
	M	28	5:32 9.7	11:31 1.2	18:04 9.2	23:47 2.0
	Tu	29	6:27 9.3	12:35 1.9	19:07 8.8	. . . . . .
☾	W	30	0:58 2.7	7:35 9.0	13:54 2.3	20:20 8.5

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			DECEMBER.			
	Th	1	2:24 2.8	8:52 8.9	15:14 2.2	21:40 8.7
E P	F	2	3:42 2.5	10:10 9.2	16:20 1.8	22:52 9.3
	S	3	4:51 1.8	11:20 9.9	17:19 1.1	23:53 10.2
	S	4	5:44 1.0	12:20 10.6	18:10 0.6	. . . . . .
	M	5	0:45 11.0	6:32 0.3	13:10 11.2	18:53 0.2
	Tu	6	1:32 11.6	7:17 —0.1	13:57 11.5	19:37 0.0
●	W	7	2:17 11.9	8:00 —0.2	14:43 11.5	20:17 0.1
S	Th	8	2:59 11.9	8:42 —0.1	15:25 11.2	20:56 0.4
	F	9	3:40 11.5	9:20 0.2	16:07 10.7	21:34 0.9
	S	10	4:21 11.0	10:00 0.8	16:48 10.0	22:09 1.5
	S	11	5:00 10.8	10:42 1.5	17:30 9.2	22:50 2.2
	M	12	5:44 9.4	11:25 2.2	18:12 8.4	23:33 2.9
	Tu	13	6:27 8.6	12:17 2.9	18:58 7.9	. . . . . .
☽	W	14	0:27 8.5	7:15 8.0	13:15 3.4	19:50 7.5
A E	Th	15	1:35 4.0	8:12 7.6	14:27 3.7	20:55 7.4
	F	16	2:58 4.0	9:20 7.5	15:30 3.6	22:04 7.6
	S	17	4:00 3.7	10:30 7.8	16:27 3.2	23:04 8.1
	S	18	4:50 3.1	11:26 8.3	17:10 2.6	23:53 8.8
	M	19	5:35 2.3	12:15 8.9	17:53 1.9	. . . . . .
	Tu	20	0:38 9.5	6:16 1.5	12:58 9.6	18:32 1.2
	W	21	1:17 10.2	6:57 0.7	13:39 10.2	19:11 0.5
○	Th	22	1:56 10.8	7:38 0.1	14:19 10.6	19:50 0.1
N	F	23	2:36 11.1	8:18 —0.3	15:00 10.8	20:31 —0.1
	S	24	3:15 11.3	8:58 —0.5	15:38 10.8	21:13 0.0
	S	25	3:56 11.2	9:42 —0.4	16:20 10.6	21:55 0.2
	M	26	4:39 11.0	10:29 —0.1	17:05 10.3	22:43 0.7
P	Tu	27	5:25 10.6	11:20 0.6	17:54 9.9	23:35 1.4
	W	28	6:15 10.0	12:17 1.3	18:47 9.4	. . . . . .
E ☾	Th	29	0:38 2.0	7:13 9.5	13:25 1.9	19:50 9.0
	F	30	1:52 2.5	8:22 9.1	14:40 2.3	21:05 8.7
	S	31	3:14 2.6	9:40 9.0	15:52 2.2	22:24 8.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the Admiralty Charts for this region, and which is 5.6 feet below mean sea level. In order to refer the above heights to the plane used upon the Portuguese Charts of Lisbon Harbor, add 1.8 feet to each. A foot is about three-tenths of a meter. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Lisbon Mean Local Civil, for the meridian 9° 6′ W., 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	2:05 14.6	7:57 2.3	14:30 14.7	20:22 1.7	
N	S	2	2:56 15.3	8:48 0.9	15:20 15.4	21:12 0.7	
○	S	3	3:45 16.0	9:38 —0.1	16:08 15.8	21:58 0.3	
P	M	4	4:30 16.2	10:23 —0.7	16:54 15.9	22:44 —0.1	
	Tu	5	5:15 16.4	11:10 —0.8	17:38 15.6	23:29 0.1	
	W	6	6:00 16.4	11:52 —0.6	18:24 15.4	. . . . . .	
	Th	7	0:17 0.8	6:47 15.3	12:41 0.2	19:12 14.5	
E	F	8	1:04 1.6	7:36 14.6	13:32 1.2	20:02 13.7	
☾	S	9	1:56 2.7	8:27 13.7	14:26 2.5	21:00 12.8	
	S	10	2:52 3.7	9:26 13.0	15:27 4.0	22:02 12.5	
	M	11	3:56 4.7	10:36 12.6	16:36 4.8	23:12 12.2	
	Tu	12	5:10 5.2	11:30 12.5	17:48 5.1	. . . . . .	
	W	13	0:27 12.2	6:25 5.1	13:00 12.3	18:55 4.8	
	Th	14	1:32 12.5	7:27 4.2	14:02 12.6	19:50 4.1	
S	F	15	2:25 13.0	8:19 3.4	14:52 12.6	20:40 3.4	
	S	16	3:10 13.3	9:03 2.7	15:35 12.8	21:22 2.8	
●	S	17	3:52 13.6	9:45 2.2	16:11 13.1	21:57 2.4	
	M	18	4:27 14.0	10:19 2.0	16:43 13.2	22:28 2.3	
A	Tu	19	4:58 14.2	10:50 1.9	17:12 13.2	22:58 2.3	
	W	20	5:27 14.2	11:20 2.0	17:43 13.5	23:29 2.4	
	Th	21	5:57 14.0	11:50 2.0	18:14 13.3	. . . . . .	
	F	22	0:00 2.6	6:28 13.7	12:20 2.1	18:46 13.3	
E	S	23	0:52 3.0	7:02 13.3	12:56 2.4	19:23 13.0	
	S	24	1:10 3.2	7:41 13.0	13:35 2.9	20:02 12.7	
☽	M	25	1:52 3.4	8:25 12.5	14:18 3.3	20:53 12.3	
	Tu	26	2:44 3.9	9:17 12.2	15:16 3.9	21:56 12.2	
	W	27	3:52 4.4	10:27 12.3	16:30 4.2	23:12 12.4	
	Th	28	5:08 4.4	11:46 12.7	17:47 4.2	. . . . . .	
N	F	29	0:27 13.2	6:24 3.9	13:00 13.5	18:56 3.6	
	S	30	1:35 14.1	7:30 2.8	14:05 14.3	19:56 2.3	
	S	31	2:31 15.2	8:25 1.2	14:59 15.2	20:50 1.0	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	M	1	3:23 16.0	9:16 —0.1	15:49 16.0	21:41 0.0	
P	Tu	2	4:13 16.6	10:07 —1.0	16:38 16.2	22:27 —0.5	
	W	3	5:00 17.2	10:51 —1.3	17:24 16.2	23:12 —0.6	
E	Th	4	5:43 17.2	11:36 —1.2	18:08 15.9	23:57 —0.2	
	F	5	6:28 16.5	12:20 —0.5	18:57 15.4	. . . . . .	
	S	6	0:42 0.6	7:14 15.6	13:08 0.6	19:37 14.4	
	S	7	1:30 1.8	8:00 14.2	13:54 2.1	20:25 13.2	
☾	M	8	2:20 3.0	8:53 13.1	14:50 3.6	21:22 12.5	
	Tu	9	3:18 4.5	9:57 12.2	15:56 5.2	22:35 11.8	
	W	10	4:34 5.5	11:15 11.6	17:14 5.8	23:55 11.7	
S	Th	11	5:57 5.7	12:35 11.4	18:31 5.8	. . . . . .	
	F	12	1:12 11.8	7:10 5.0	13:44 11.6	19:54 5.2	
	S	13	2:09 12.3	8:05 4.1	14:38 12.0	20:24 4.0	
	S	14	2:55 12.9	8:48 3.2	15:20 12.5	21:06 3.2	
	M	15	3:36 13.4	9:30 3.2	15:55 13.0	21:40 2.5	
A ●	Tu	16	4:10 13.8	10:00 2.0	16:24 13.5	22:10 2.1	
	W	17	4:38 14.2	10:28 1.7	16:52 13.7	22:38 1.9	
	Th	18	5:06 14.5	10:55 1.5	17:20 14.1	23:06 1.8	
E	F	19	5:34 14.8	11:24 1.4	17:48 14.1	23:35 1.8	
	S	20	6:04 14.6	11:54 1.5	18:20 14.1	. . . . . .	
	S	21	0:07 2.1	6:36 14.0	12:27 1.8	18:52 13.9	
	M	22	0:42 2.4	7:12 13.3	13:05 2.4	19:32 13.4	
	Tu	23	1:23 2.8	7:54 13.1	13:46 2.9	20:17 12.8	
☽	W	24	2:10 3.4	8:44 11.5	14:40 3.7	21:18 12.3	
	Th	25	3:13 4.1	9:50 12.1	15:52 4.5	22:33 12.2	
N	F	26	4:33 4.5	11:15 12.2	17:14 4.8	23:58 12.6	
	S	27	5:58 4.2	12:38 12.9	18:34 4.2	. . . . . .	
	S	28	1:12 13.7	7:10 3.2	13:45 14.0	19:38 3.0	
	M	29	2:13 14.7	8:08 1.6	14:42 15.1	20:52 1.4	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	3:05 15.9	9:00 —0.1	15:31 16.0	21:24 0.1	
○	W	2	3:36 17.0	9:48 —1.0	16:19 16.4	22:09 —1.2	
E	Th	3	4:20 17.7	10:33 —1.3	16:42 16.9	22:50 —1.0	
	F	4	5:22 17.4	11:15 —1.2	17:44 16.4	23:35 —0.8	
	S	5	6:05 17.0	11:59 —0.5	18:27 15.7	. . . . . .	
	S	6	0:18 0.1	6:49 15.8	12:42 0.5	19:10 14.7	
	M	7	1:04 1.3	7:35 14.4	13:36 2.2	19:56 13.2	
	Tu	8	1:48 2.7	8:20 13.0	14:13 3.6	20:45 12.3	
☾	W	9	2:42 4.1	9:19 11.8	15:14 5.2	21:52 11.7	
S	Th	10	3:54 5.5	10:35 11.1	16:32 6.2	23:15 11.4	
	F	11	5:22 6.2	12:00 11.0	17:58 6.3	. . . . . .	
	S	12	0:38 11.5	6:40 5.6	13:16 11.3	19:08 5.7	
	S	13	1:42 12.0	7:38 4.6	14:10 11.9	19:58 4.5	
A	M	14	2:10 13.0	8:22 3.6	14:33 12.8	20:40 3.5	
	Tu	15	2:50 13.7	9:00 2.7	15:29 13.2	21:15 2.6	
	W	16	3:43 14.0	9:32 2.0	15:58 13.8	21:45 2.0 ●	
● E	Th	17	4:12 14.5	10:00 1.4	16:25 14.4	22:12 1.5	
	F	18	4:40 14.9	10:29 1.1	16:55 14.7	22:42 1.2	
	S	19	5:10 15.2	10:58 1.0	17:25 14.9	23:13 1.2	
	S	20	5:40 15.0	11:30 1.1	17:56 14.7	23:46 1.5	
	M	21	6:14 14.5	12:04 1.5	18:31 14.2	. . . . . .	
	Tu	22	0:22 2.0	6:50 14.2	12:42 2.2	19:10 13.8	
	W	23	1:02 2.5	7:30 13.5	13:22 3.0	19:52 13.0	
N ☽	Th	24	1:48 3.2	8:22 12.4	14:17 3.8	20:52 12.2	
	F	25	2:50 4.1	9:31 11.8	15:30 4.8	22:09 12.0	
	S	26	4:11 4.5	10:55 11.8	16:54 5.1	23:35 12.5	
	S	27	5:37 4.4	12:19 12.5	18:14 4.6	. . . . . .	
	M	28	0:51 13.5	6:50 3.4	13:26 13.7	19:20 3.4	
P	Tu	29	1:52 14.6	7:48 2.0	14:22 14.8	20:15 1.8	
E	W	30	2:45 15.7	8:38 0.5	15:11 15.7	21:03 0.4	
○	Th	31	3:34 16.7	9:27 —1.5	15:38 16.6	21:47 —0.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water add the tabular height to the soundings given on the chart unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:17	10:10	16:38	22:30		S	1	4:38	10:27	16:57	22:50		W	1	5:40	11:29	17:57	23:50
			16.8	—2.7	16.3	—1.7				15.7	—1.5	15.6	—1.7				13.4	0.3	13.7	0.2
	S	2	5:00	10:52	17:20	23:11		M	2	5:20	11:08	17:38	23:32		Th	2	6:21	12:07	18:37	. . .
			16.5	—2.5	15.9	—2.5				15.0	—1.0	14.9	—1.0				12.7	1.0	13.0	. . .
	S	3	5:42	11:38	18:02	23:54	S	Tu	3	6:02	11:50	18:20	. . .		F	3	0:30	6:59	12:47	19:18
			15.8	—1.8	15.2	—1.5				14.1	—0.2	14.0	. . .				1.2	11.9	2.0	12.2
	M	4	6:25	12:15	18:43	. . .		W	4	0:12	6:42	12:32	19:02		S	4	1:11	7:40	13:32	20:02
			14.7	—0.7	14.2	. . .				0.0	13.0	1.0	13.0				2.0	11.2	2.8	11.5
	Tu	5	0:37	7:07	13:00	19:29		Th	5	0:54	7:23	13:15	19:47	A	S	5	1:57	8:15	14:17	20:50
			—0.3	13.3	0.7	12.8				1.2	11.9	2.2	11.9				2.9	11.0	3.6	11.1
S	W	6	1:20	7:50	13:42	20:12		F	6	1:40	8:10	14:01	20:33	☾	M	6	2:45	9:18	15:10	21:42
			1.2	12.1	2.3	11.8				2.4	11.0	3.3	11.2				3.6	10.9	4.2	11.1
☾	Th	7	2:10	8:42	14:55	21:12	☾	S	7	2:35	9:08	15:00	21:36	E	Tu	7	3:42	10:20	16:13	22:47
			2.7	11.1	3.7	11.0				3.5	10.6	4.2	10.9				4.0	11.2	4.3	11.5
	F	8	3:15	9:52	15:46	22:28	A	S	8	3:40	10:18	16:10	22:50		W	8	4:47	11:25	17:17	23:51
			3.8	10.5	4.6	11.0				4.1	10.6	4.7	11.2				3.9	11.8	4.0	12.1
	S	9	4:35	11:15	17:11	23:52		M	9	4:50	11:29	17:21	23:57		Th	9	5:47	12:25	18:17	. . .
			4.5	10.9	5.1	11.5				4.2	11.2	4.6	11.7				3.4	12.5	3.3	. . .
A	S	10	5:55	12:32	18:24	. . .		Tu	10	5:55	12:32	18:23	. . .		F	10	0:50	6:43	13:18	19:10
			4.5	11.5	4.5	. . .				3.8	11.9	3.9	. . .				12.9	2.4	13.4	2.3
	M	11	1:00	6:55	13:30	19:18	E	W	11	0:55	7:05	13:21	19:12		S	11	1:44	7:36	14:10	20:02
			12.1	3.7	12.2	3.5				12.4	3.1	12.8	2.8				13.7	1.5	14.2	1.2
	Tu	12	1:50	7:40	14:13	20:02		Th	12	1:44	7:35	14:08	20:00		S	12	2:15	8:27	14:39	20:52
			12.8	2.6	13.0	2.3				13.3	1.9	13.7	1.6				14.5	0.5	15.0	0.0
E	W	13	2:34	8:21	14:54	20:41		F	13	2:29	8:18	14:50	20:40	●	M	13	3:20	9:10	15:42	21:35
			13.5	1.5	13.6	1.2				13.9	0.8	14.3	0.6				14.7	—0.3	15.4	—0.7
	Th	14	3:09	8:57	15:25	21:14		S	14	3:07	8:57	15:27	21:18	N	Tu	14	4:05	9:54	16:05	22:19
			14.2	0.5	14.2	0.3				14.5	0.0	14.9	—0.1				15.1	—0.7	15.8	—1.1
●	F	15	3:41	9:30	15:57	21:45	●	S	15	3:45	9:33	16:04	21:55		W	15	4:50	10:38	17:09	23:02
		●	14.5	—0.3	14.6	—0.2				14.9	—0.5	15.2	—0.7				14.9	—0.8	15.4	—1.2
	S	16	4:12	10:10	16:28	22:18		M	16	4:23	10:12	16:42	22:36		Th	16	5:33	11:24	17:52	23:47
			14.7	—0.6	14.8	—0.5				15.1	—0.7	15.3	—1.3				14.6	—0.5	15.1	—0.9
	S	17	4:45	10:35	17:02	22:54		Tu	17	5:04	10:52	17:23	23:17	P	F	17	6:16	12:10	18:40	. . .
			14.9	—0.4	14.8	—0.3				14.7	—0.3	15.0	—0.6				14.0	—0.1	14.4	. . .
	M	18	5:20	11:10	17:38	23:29	N	W	18	5:45	11:35	18:05	23:59		S	18	0:35	7:04	12:57	19:28
			14.7	0.0	14.5	0.2				14.4	0.2	14.4	0.0				—0.3	13.3	0.7	13.7
	Tu	19	5:57	11:47	18:16	. . .		Th	19	6:27	12:19	18:50	. . .		S	19	1:27	7:57	13:50	20:21
			14.2	0.6	14.2	. . .				13.7	0.8	13.7	. . .				0.5	12.7	1.5	13.0
N	W	20	0:08	6:36	12:27	18:58		F	20	0:42	7:12	13:02	19:34	☽ E	M	20	2:20	8:55	14:47	21:20
			0.8	13.6	1.5	13.4				0.7	12.8	1.9	13.0				1.4	12.2	2.4	12.5
	Th	21	0:50	7:18	13:09	19:41		S	21	1:34	8:08	14:00	20:31		Tu	21	3:24	10:00	15:51	22:27
			1.6	12.8	2.5	12.7				1.6	12.0	2.6	12.3				2.2	12.1	3.1	12.5
	F	22	1:39	8:12	14:06	20:38	☽ P	S	22	2:34	9:11	15:02	21:39		W	22	4:29	11:08	17:00	23:38
			2.5	11.8	3.4	11.9				2.3	11.6	3.3	12.0				2.7	12.4	3.3	12.7
☽	S	23	2:44	9:21	15:15	21:52		M	23	3:44	10:24	16:16	22:55		Th	23	5:37	12:15	18:08	. . .
			3.2	11.2	4.0	11.6				2.9	11.8	3.6	12.3				2.9	12.6	3.0	. . .
	S	24	3:57	10:42	16:35	23:15	E	Tu	24	4:56	11:36	17:28	23:45		F	24	0:45	6:41	13:15	19:10
			3.6	11.5	4.0	12.2				2.9	12.4	3.4	13.1				13.0	2.6	13.4	2.3
	M	25	5:20	12:00	17:52	. . .		W	25	6:04	12:40	18:34	. . .		S	25	1:44	7:37	14:10	20:04
			3.2	12.4	3.3	. . .				2.5	13.2	2.5	. . .				13.6	2.0	13.8	1.4
P	Tu	26	0:30	6:29	13:06	18:57		Th	26	1:06	7:02	13:36	19:28		S	26	2:36	8:27	14:58	20:51
			13.2	2.3	13.5	2.0				13.8	1.7	14.0	1.4				13.8	1.2	14.2	0.6
E	W	27	1:30	7:25	14:00	19:52		F	27	2:00	7:52	14:26	20:18	S ☾	M	27	3:22	9:14	15:45	21:38
			14.5	1.0	14.5	0.6				14.5	0.9	14.5	0.4				13.8	0.7	14.3	0.0
	Th	28	2:24	8:15	14:48	20:40		S	28	2:50	8:42	15:14	21:07		Tu	28	3:48	9:54	16:24	22:19
			15.2	—0.2	15.3	—0.6				14.8	0.1	15.0	—0.4				13.9	0.3	14.4	—0.1
○	F	29	3:12	9:02	15:35	21:27	○	S	29	3:39	9:30	16:00	21:51		W	29	4:25	10:32	17:02	22:56
			15.9	—1.1	15.7	—1.5				14.9	—0.4	14.9	—0.8				13.7	0.3	14.1	0.0
	S	30	3:58	9:47	16:16	22:07		M	30	4:20	10:09	16:38	22:31		Th	30	5:04	11:07	17:38	23:31
			16.0	—1.6	15.8	—1.8				14.7	—0.5	14.8	—0.8				13.2	0.5	13.7	0.3
							S	Tu	31	5:00	10:48	17:18	23:12							
										14.2	—0.3	14.4	—0.4							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	5:58	11:43	18:14	. . .	
			12.6	1.0	13.2	. . .	
A	S	2	0:07	6:32	12:19	18:50	
			0.8	12.2	1.5	12.7	
	S	3	0:44	7:10	12:57	19:27	
			1.5	11.8	2.2	12.3	
	M	4	1:20	7:48	13:38	20:09	
			2.2	11.6	3.0	11.8	
E ☾	Tu	5	2:02	8:32	14:22	20:54	
			2.8	11.4	3.6	11.5	
	W	6	2:47	9:21	15:12	21:45	
			3.5	11.4	4.1	11.5	
	Th	7	3:42	10:21	16:16	22:50	
			3.8	11.7	4.2	11.8	
	F	8	4:48	11:09	17:22	23:55	
			3.6	12.4	3.8	12.5	
	S	9	5:55	12:34	18:28	. . .	
			3.2	13.0	2.9	. . .	
	S	10	1:02	6:58	13:34	19:27	
			13.3	2.2	14.0	1.6	
	M	11	2:00	7:54	14:28	20:21	
			14.1	1.1	14.8	0.4	
N	Tu	12	2:53	8:47	15:19	21:12	
			14.7	0.0	15.7	—0.7	
●	W	13	3:45	9:37	16:08	22:00	
			15.3	—1.1	16.0	—1.7	
	Th	14	4:33	10:22	16:54	22:47	
			15.5	—2.6	16.2	—2.0	
P	F	15	5:00	11:08	17:39	23:32	
			15.5	—2.5	15.9	—1.9	
	S	16	6:02	11:55	18:25	. . .	
			14.8	—1.2	15.3	. . .	
	S	17	0:18	6:50	12:42	19:12	
			—1.5	14.2	—0.5	14.7	
E	M	18	1:07	7:37	13:30	20:02	
			—0.5	13.5	0.4	13.7	
☽	Tu	19	1:59	8:30	14:23	20:55	
			0.6	12.7	1.5	13.0	
	W	20	2:55	9:29	15:21	22:00	
			1.8	12.2	2.6	12.4	
	Th	21	3:59	10:37	16:30	23:10	
			2.8	12.1	3.4	12.3	
	F	22	5:10	11:30	17:47	. . .	
			3.4	12.2	3.5	. . .	
	S	23	0:05	6:40	13:00	18:56	
			12.4	3.7	12.7	3.2	
S	S	24	1:31	7:24	13:38	19:54	
			12.8	3.0	13.4	2.3	
	M	25	2:07	8:15	14:48	20:40	
			13.2	2.1	13.7	1.4	
	Tu	26	3:14	9:04	15:32	21:26	
			13.3	1.5	14.0	0.7	
○	W	27	3:56	9:42	16:12	22:05	
			13.3	0.8	14.2	0.3	
	Th	28	4:30	10:17	16:47	22:38	
			13.3	0.5	14.0	0.1	
	F	29	5:07	10:49	17:18	23:10	
			13.1	0.4	13.8	0.1	
A	S	30	5:33	11:20	17:48	23:40	
			13.0	0.5	13.6	0.5	
	S	31	6:05	11:50	18:20	. . .	
			12.7	1.1	13.2	. . .	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	0:12	6:36	12:22	18:52	
			1.0	12.6	1.7	13.0	
	Tu	2	0:44	7:10	12:58	19:18	
			1.7	12.4	2.3	12.7	
	W	3	1:21	7:48	13:40	20:10	
			2.4	12.2	3.1	12.2	
☾	Th	4	2:02	8:32	14:22	20:55	
			3.1	11.9	3.7	11.9	
	F	5	2:52	9:28	15:24	21:58	
			3.7	11.7	4.1	11.7	
	S	6	4:00	10:40	16:35	23:14	
			4.0	11.9	4.1	12.0	
	S	7	5:14	11:35	17:52	. . .	
			3.7	12.8	3.3	. . .	
N	M	8	0:29	6:27	13:06	19:00	
			12.9	2.7	13.6	2.1	
	Tu	9	1:35	7:30	14:05	20:00	
			13.8	1.5	14.7	0.5	
	W	10	2:32	8:25	14:58	20:52	
			14.7	0.0	15.8	—1.0	
●	Th	11	3:24	9:17	15:30	21:42	
			15.4	—1.2	16.6	—2.1	
P	F	12	4:15	10:04	16:17	22:30	
			16.0	—2.0	17.0	—2.7	
	S	13	5:00	10:50	17:20	23:15	
			16.0	—2.4	16.7	—2.8	
E	S	14	5:45	11:33	18:05	23:59	
			15.6	—2.2	16.1	—2.3	
	M	15	6:28	12:19	18:51	. . .	
			15.1	—1.5	15.2	. . .	
	Tu	16	0:44	7:13	13:07	19:37	
			—1.1	14.2	—0.3	14.2	
	W	17	1:32	8:00	13:54	20:27	
			0.2	13.1	1.0	13.0	
☽	Th	18	2:24	8:56	14:51	21:29	
			1.7	12.3	2.3	12.1	
	F	19	3:27	10:02	16:02	22:42	
			3.0	11.7	3.4	11.7	
	S	20	4:42	11:22	17:25	. . .	
			4.0	11.9	4.0	. . .	
S	S	21	0:05	6:00	12:40	18:40	
			11.9	4.2	12.3	3.7	
	M	22	1:17	7:09	13:47	19:42	
			12.3	3.7	12.8	2.9	
	Tu	23	2:15	8:04	14:35	20:29	
			12.8	2.8	13.5	2.0	
	W	24	3:00	8:50	15:18	21:11	
			13.1	1.8	13.9	1.2	
	Th	25	3:40	9:27	15:55	21:46	
			13.5	1.0	14.1	0.5	
○	F	26	4:11	9:58	16:07	22:15	
			13.6	0.4	14.3	0.0	
A	S	27	4:39	10:27	16:54	22:42	
			13.6	0.1	14.1	—0.1	
E	S	28	5:07	10:54	17:10	23:10	
			13.6	0.1	14.1	0.3	
	M	29	5:35	11:22	17:50	23:39	
			13.5	0.6	13.8	0.6	
	Tu	30	6:04	11:52	18:20	. . .	
			13.5	1.3	13.6	. . .	
	W	31	0:10	6:36	12:25	18:53	
			1.2	13.3	2.0	13.3	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	0:47	7:13	13:04	19:32	
			2.1	13.0	2.6	12.8	
	F	2	1:27	7:55	13:46	20:19	
			2.9	12.4	3.5	12.2	
☾	S	3	2:15	8:50	14:46	21:22	
			3.7	11.8	4.0	11.5	
N	S	4	3:22	10:00	16:00	22:40	
			4.2	11.5	4.1	11.2	
	M	5	4:42	11:22	17:25	. . .	
			4.2	12.0	3.5	. . .	
	Tu	6	0:05	6:04	12:41	18:40	
			12.5	3.2	13.2	2.3	
	W	7	1:16	7:10	13:45	19:40	
			13.5	1.9	14.5	0.7	
	Th	8	2:15	8:05	14:39	20:32	
			14.6	0.2	15.7	—1.1	
P ●	F	9	3:05	8:57	15:28	21:22	
			15.7	—1.2	16.7	—2.2	
E	S	10	3:55	9:44	16:15	22:07	
			16.4	—2.2	17.2	—3.0	
	S	11	4:37	10:27	16:58	22:52	
			16.7	—2.7	17.2	—3.0	
	M	12	5:20	11:10	17:42	23:35	
			16.3	—2.7	16.6	—2.5	
	Tu	13	6:04	11:55	18:27	. . .	
			15.7	—2.1	15.5	. . .	
	W	14	0:20	6:47	12:40	19:10	
			—1.4	14.6	—0.8	14.2	
	Th	15	1:03	7:33	13:25	19:59	
			0.1	13.4	0.7	12.8	
☽	F	16	1:51	8:22	14:20	20:58	
			1.7	12.2	2.2	11.7	
S	S	17	2:52	9:29	15:32	22:12	
			3.2	11.5	3.4	11.1	
	S	18	4:08	10:50	16:57	23:39	
			4.3	11.5	4.3	11.5	
	M	19	5:35	12:15	18:19	. . .	
			4.7	12.1	4.2	. . .	
	Tu	20	0:57	6:48	13:25	19:22	
			12.0	4.2	12.6	3.4	
	W	21	1:55	7:42	14:14	20:05	
			12.6	3.2	13.2	2.4	
	Th	22	2:37	8:25	14:54	20:46	
			13.2	2.1	13.8	1.4	
A	F	23	3:15	9:02	15:30	21:18	
			13.6	1.2	14.2	0.6	
○ E	S	24	3:45	9:32	16:00	21:46	
			13.8	0.4	14.2	0.0	
	S	25	4:11	9:59	16:25	22:12	
			14.2	—0.1	14.4	—0.2	
	M	26	4:38	10:26	16:54	22:41	
			14.2	—0.1	14.3	0.0	
	Tu	27	5:08	10:56	17:22	23:12	
			14.2	0.2	14.3	0.4	
	W	28	5:38	11:27	17:54	23:44	
			14.2	0.8	14.2	1.1	
	Th	29	6:10	12:00	18:30	. . .	
			14.0	1.5	13.6	. . .	
	F	30	0:20	6:48	12:40	19:08	
			2.0	13.5	2.2	13.0	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	1:00 2.8	7:30 12.7	13:24 3.0	19:55 12.1	
N ☾	S	2	1:50 3.6	8:22 12.0	14:20 3.7	20:58 11.2	
	M	3	2:55 4.3	9:34 11.3	15:36 4.0	22:20 11.2	
	Tu	4	4:16 4.3	10:58 11.8	17:04 3.5	23:45 12.1	
	W	5	5:40 3.5	12:18 12.8	18:20 2.4	. . . . . .	
	Th	6	0:57 13.3	6:50 2.2	13:22 14.3	19:20 0.9	
	F	7	1:55 14.5	7:46 0.5	14:17 15.6	20:12 —0.6	
P E	S	8	2:43 15.6	8:36 —1.0	15:08 16.6	21:00 —1.9	
●	S	9	3:30 16.8	9:23 —2.1	15:52 17.0	21:45 —2.6	
	M	10	4:14 16.7	10:05 —2.7	16:35 16.9	22:28 —2.7	
	Tu	11	4:56 16.5	10:48 —2.7	17:18 16.2	23:10 —2.1	
	W	12	5:39 15.7	11:32 —2.0	18:02 15.3	23:53 —1.2	
	Th	13	6:22 14.7	12:15 —1.0	18:45 13.9	. . . . . .	
S	F	14	0:38 0.2	7:08 13.6	13:00 0.5	19:30 12.6	
	S	15	1:24 1.7	7:54 12.3	13:53 2.0	20:26 11.5	
☽	S	16	2:17 3.1	8:55 11.3	14:58 3.3	21:35 10.7	
	M	17	3:29 4.3	10:10 11.2	16:17 4.2	23:00 11.1	
	Tu	18	4:54 4.8	11:36 11.8	17:38 4.4	. . . . . .	
	W	19	0:16 11.7	6:10 4.6	12:46 12.2	18:44 3.8	
A	Th	20	1:16 12.2	7:06 3.8	13:38 12.7	19:30 2.9	
	F	21	2:02 13.0	7:50 2.6	14:20 13.3	20:10 1.8	
E	S	22	2:40 13.5	8:30 1.5	14:57 13.9	20:44 0.9	
	S	23	3:12 14.0	9:00 0.6	15:26 14.3	21:15 0.1	
○	M	24	3:42 14.4	9:31 0.0	15:57 14.5	21:44 —0.2	
	Tu	25	4:13 14.6	10:00 —0.2	16:28 14.5	22:16 —0.1	
	W	26	4:44 14.6	10:35 0.0	17:00 14.5	22:50 0.2	
	Th	27	5:18 14.6	11:09 0.2	17:35 14.2	23:24 0.7	
	F	28	5:54 14.3	11:45 0.9	18:12 13.7	. . . . . .	
N	S	29	0:03 1.5	6:32 13.6	12:25 1.7	18:50 13.0	
	S	30	0:42 2.5	7:15 13.0	13:10 2.5	19:41 12.0	
☾	M	31	1:32 3.5	8:05 12.0	14:07 3.2	20:45 11.2	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	2:38 4.0	9:15 11.5	15:20 3.6	22:02 11.2	
	W	2	3:55 4.1	10:36 11.7	16:42 3.4	23:22 11.9	
	Th	3	5:17 3.7	11:55 12.7	17:55 2.6	. . . . . .	
E	F	4	0:32 13.1	6:25 2.5	13:00 14.0	18:57 1.5	
P	S	5	1:30 14.2	7:22 1.0	13:55 15.0	19:47 0.1	
	S	6	2:21 15.2	8:14 —0.4	14:45 15.7	20:37 —1.0	
●	M	7	3:10 15.8	9:02 —1.4	15:32 16.2	21:24 —1.6	
	Tu	8	3:54 16.2	9:47 —2.0	16:15 16.2	22:06 —1.8	
	W	9	4:35 16.0	10:28 —2.0	16:59 15.5	22:48 —1.5	
	Th	10	5:17 15.5	11:10 —1.6	17:41 14.8	23:30 —0.8	
S	F	11	6:00 14.6	11:53 —0.7	18:24 13.6	. . . . . .	
	S	12	0:12 0.3	6:44 13.6	12:37 0.4	19:05 12.4	
	S	13	1:00 1.5	7:30 12.4	13:24 1.8	19:55 11.4	
	M	14	1:46 2.8	8:18 11.5	14:20 2.9	20:52 10.8	
☽	Tu	15	2:44 3.8	9:20 11.1	15:25 3.7	22:00 10.6	
	W	16	3:54 4.5	10:33 11.2	16:37 4.2	23:15 11.2	
A	Th	17	5:08 4.6	11:45 11.7	17:42 4.0	. . . . . .	
E	F	18	0:20 11.7	6:32 4.2	12:43 12.2	18:36 3.4	
	S	19	1:11 12.5	7:02 3.2	13:33 12.8	19:23 2.4	
	S	20	1:55 13.3	7:47 2.1	14:17 13.5	20:07 1.4	
	M	21	2:40 13.8	8:27 1.1	14:54 14.0	20:43 0.6	
	Tu	22	3:13 14.4	9:03 0.3	15:30 14.4	21:18 0.0	
○	W	23	3:49 14.8	9:39 —0.2	16:07 14.5	21:54 —0.2	
	Th	24	4:25 15.0	10:17 —0.4	16:45 14.6	22:32 —0.2	
N	F	25	5:00 15.0	10:55 —0.3	17:22 14.2	23:11 0.2	
	S	26	5:41 14.5	11:35 0.0	18:02 13.8	23:52 0.8	
	S	27	6:23 14.0	12:17 0.6	18:45 13.0	. . . . . .	
	M	28	0:37 1.5	7:07 13.3	13:02 1.4	19:34 12.2	
	Tu	29	1:26 2.3	7:58 12.7	13:59 2.2	20:34 11.6	
☾	W	30	2:25 3.1	8:58 12.0	15:05 2.7	21:40 11.5	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	3:33 3.6	10:11 12.0	16:15 3.0	22:55 12.0	
E	F	2	4:47 3.6	11:25 12.7	17:27 2.8	. . . . . .	
P	S	3	0:05 12.8	5:57 3.0	12:32 13.3	18:31 2.2	
	S	4	1:07 13.7	7:00 1.8	13:32 14.3	19:27 1.2	
	M	5	2:00 14.4	7:52 0.7	14:25 14.7	20:17 0.3	
	Tu	6	2:50 15.0	8:41 —0.3	15:12 15.1	21:07 —0.5	
●	W	7	3:37 15.3	9:30 —1.0	15:42 15.1	21:50 —0.8	
S	Th	8	4:20 15.2	10:13 —1.2	16:42 14.7	22:30 —1.2	
	F	9	5:00 15.1	10:55 —1.1	17:23 14.1	23:10 —0.4	
	S	10	5:41 14.3	11:33 —0.5	18:05 13.2	23:51 0.3	
	S	11	6:21 13.7	12:14 0.3	18:45 12.6	. . . . . .	
	M	12	0:34 1.2	7:02 12.8	12:57 1.3	19:25 11.7	
	Tu	13	1:17 2.2	7:47 12.0	13:40 2.4	20:07 11.1	
☽	W	14	2:00 3.1	8:33 11.3	14:30 3.2	21:00 10.8	
A E	Th	15	2:52 3.9	9:22 11.0	15:24 3.9	22:00 10.9	
	F	16	3:53 4.4	10:27 11.1	16:28 4.1	23:05 11.3	
	S	17	5:00 4.4	11:32 11.5	17:29 3.8	. . . . . .	
	S	18	0:10 12.0	6:02 4.0	12:35 12.2	18:27 3.2	
	M	19	1:05 12.7	6:58 3.0	13:30 13.0	19:22 2.2	
	Tu	20	1:55 13.5	7:47 1.9	14:22 13.7	20:12 1.2	
	W	21	2:46 14.2	8:37 0.7	15:05 14.3	20:55 0.3	
○	Th	22	3:27 15.0	9:20 —0.2	15:48 14.7	21:37 —0.3	
N	F	23	4:08 15.3	10:00 —0.8	16:30 14.8	22:19 —0.7	
	S	24	4:49 15.5	10:42 —1.0	17:12 14.7	23:00 —0.6	
	S	25	5:30 15.2	11:26 —1.0	17:55 14.2	23:45 —0.4	
	M	26	6:15 14.9	12:08 —0.8	18:36 13.8	. . . . . .	
P	Tu	27	0:29 0.3	7:00 14.2	12:54 0.1	19:22 13.0	
	W	28	1:17 1.1	7:47 13.5	13:45 1.0	20:16 12.3	
E ☾	Th	29	2:09 2.0	8:40 12.7	14:44 1.9	21:15 11.9	
	F	30	3:07 2.8	9:42 12.2	15:45 2.7	22:22 11.9	
	S	31	4:15 3.4	10:55 12.2	16:56 3.2	23:36 12.2	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 8.5 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:02 17.6	8:33 1.7	14:27 17.9	20:58 1.0
N	S	2	2:52 18.8	9:25 0.3	15:17 19.1	21:47 —0.1
○	S	3	3:40 19.9	10:12 —0.9	16:04 19.8	22:32 —0.8
P	M	4	4:27 20.5	10:57 —1.5	16:51 20.1	23:19 —1.1
	Tu	5	5:12 20.7	11:43 —1.6	17:36 19.9	. . . . . .
	W	6	0:03 —0.8	5:58 20.4	12:27 —1.2	18:24 19.1
	Th	7	0:47 —0.3	6:47 19.6	13:15 —0.4	19:15 18.3
E	F	8	1:35 0.8	7:40 18.5	14:08 0.8	20:10 17.2
☾	S	9	2:25 1.9	8:37 17.2	14:56 2.0	21:10 16.1
	S	10	3:22 3.0	9:40 16.1	15:55 3.1	22:17 15.3
	M	11	4:26 4.0	10:50 15.4	17:08 4.0	23:26 15.0
	Tu	12	5:40 4.5	11:57 15.1	18:17 4.4	. . . . . .
	W	13	0:29 15.1	6:56 4.2	13:00 15.2	19:27 3.9
	Th	14	1:27 15.6	8:00 3.4	13:55 15.6	20:24 3.0
S	F	15	2:19 16.3	8:54 2.5	14:45 16.1	21:14 2.2
	S	16	3:04 16.9	9:39 1.7	15:28 16.6	21:55 1.6
●	S	17	3:45 17.4	10:19 1.3	16:06 16.9	22:34 1.4
	M	18	4:22 17.7	10:52 1.1	16:40 17.0	23:08 1.4
A	Tu	19	4:57 17.8	11:27 1.2	17:14 17.0	23:39 1.7
	W	20	5:28 17.5	11:59 1.6	17:42 16.8	. . . . . .
	Th	21	0:11 2.2	5:59 17.1	12:28 2.0	18:13 16.5
	F	22	0:40 2.7	6:31 16.8	13:00 2.6	18:46 16.2
E	S	23	1:09 3.2	7:05 16.2	13:30 3.1	19:24 15.7
	S	24	1:39 3.7	7:44 15.6	14:05 3.6	20:08 15.1
☽	M	25	2:21 4.1	8:32 14.9	14:50 4.1	21:04 14.5
	Tu	26	3:11 4.6	9:33 14.3	15:46 4.5	22:12 14.1
	W	27	4:18 5.1	10:47 14.1	17:02 5.0	23:29 14.5
	Th	28	5:42 5.0	12:04 14.7	18:24 4.6	. . . . . .
N	F	29	0:38 15.5	7:02 4.0	13:10 15.8	19:37 3.3
	S	30	1:39 16.8	8:10 2.4	14:08 17.2	20:40 1.7
	S	31	2:34 18.4	9:07 0.6	15:02 18.6	21:32 0.1

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	3:25 19.8	9:57 —0.9	15:50 19.7	22:18 —1.1
P	Tu	2	4:12 20.7	10:42 —1.9	16:37 20.4	23:04 —1.8
	W	3	4:59 20.3	11:27 —2.3	17:23 20.5	23:46 —1.8
E	Th	4	5:42 21.3	12:10 —2.1	18:06 20.2	. . . . . .
	F	5	0:30 —1.4	6:28 20.6	12:54 —1.3	18:52 19.3
	S	6	1:12 —0.4	7:16 19.4	13:37 0.0	19:40 18.1
	S	7	1:59 1.0	8:07 17.9	14.25 1.5	20:34 16.7
☾	M	8	2:47 2.5	9:03 16.3	15:17 3.1	21:35 15.3
	Tu	9	3:47 4.0	10:10 14.9	16:21 4.5	22:47 14.4
	W	10	4:58 5.0	11:22 14.2	17:37 5.4	23:57 14.2
S	Th	11	6:21 5.3	12:31 14.0	18:58 5.2	. . . . . .
	F	12	1:02 14.5	7:37 4.6	13:34 14.4	20:05 4.3
	S	13	2:00 15.3	8:35 3.5	14:27 15.2	20:56 3.1
	S	14	2:46 16.1	9:21 2.4	15:10 15.8	21:39 2.1
	M	15	3:27 16.9	10:00 1.6	15:47 16.7	22:15 1.5
A ●	Tu	16	4:04 17.6	10:33 1.1	16:20 17.2	22:49 1.1
	W	17	4:37 18.0	11:06 0.9	16:52 17.6	23:19 1.1
	Th	18	5:08 18.1	11:35 0.9	17:21 17.7	23:47 1.3
E	F	19	5:34 18.1	12:04 1.2	17:48 17.7	. . . . . .
	S	20	0:16 1.7	6:05 17.8	12:32 1.7	18:20 17.4
	S	21	0:44 2.2	6:37 17.4	13:02 2.2	18:55 16.9
	M	22	1:13 2.7	7:14 16.6	13:34 2.8	19:35 16.1
	Tu	23	1:50 3.2	7:57 15.8	14:16 3.6	20:25 15.2
☽	W	24	2:40 4.0	8:53 14.7	15:08 4.5	21:30 14.3
	Th	25	3:42 4.8	10:09 14.0	16:20 5.3	22:58 14.0
N	F	26	5:05 5.2	11:34 14.1	17:52 5.2	. . . . . .
	S	27	0:14 14.9	6:37 4.5	12:49 15.1	19:16 4.0
	S	28	1:20 16.3	7:50 2.9	13:52 16.7	20:22 2.1
	M	29	2:17 18.0	8:50 0.9	14:46 18.3	21:16 0.2

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	3:08 19.6	9:41 —0.9	15:34 19.8	22:04 —1.3
○	W	2	3:56 20.9	10:26 —2.1	16:20 20.7	22:45 —2.3
E	Th	3	4:40 21.6	11:09 —2.7	17:04 21.0	23:27 —2.4
	F	4	5:24 21.6	11:48 —2.4	17:44 20.7	. . . . . .
	S	5	0:08 —2.0	6:05 20.9	12:30 —1.5	18:26 19.8
	S	6	0:50 —0.9	6:48 19.6	13:12 —0.1	19:10 18.0
	M	7	1:32 —0.7	7:35 17.9	13:55 1.6	19:58 16.8
	Tu	8	2:18 2.4	8:27 16.2	14:42 3.3	20:54 15.2
☾	W	9	3:10 4.0	9:28 14.5	15:40 4.9	22:02 14.0
S	Th	10	4:16 5.3	10:47 13.4	16:55 6.0	23:22 13.5
	F	11	5:42 5.9	12:00 13.2	18:22 6.1	. . . . . .
	S	12	0:32 13.7	7:07 5.5	13:08 13.6	19:37 5.2
	S	13	1:34 14.5	8:09 4.4	14:00 14.5	20:32 3.9
A	M	14	2:22 15.5	8:55 3.1	14:44 15.6	21:12 2.6
	Tu	15	3:02 16.5	9:34 1.9	15:19 16.7	21:50 1.6
	W	16	3:37 17.5	10:06 1.1	15:52 17.6	22:22 0.9
● E	Th	17	4:10 18.3	10:38 0.5	16:24 18.3	22:52 0.5
	F	18	4:40 18.6	11:07 0.3	16:55 18.6	23:22 0.5
	S	19	5:10 18.8	11:38 0.5	17:24 18.6	23:52 0.8
	S	20	5:40 18.6	12:08 1.0	17:56 18.3	. . . . . .
	M	21	0:21 1.3	6:14 18.1	12:39 1.6	18:31 17.6
	Tu	22	0:54 2.0	6:50 17.2	13:13 2.5	19:12 16.7
	W	23	1:31 2.8	7:35 16.2	13:53 3.3	20:00 15.6
N ☽	Th	24	2:19 3.7	8:30 14.9	14:45 4.3	21:05 14.5
	F	25	3:21 4.6	9:46 14.0	15:58 5.4	22:29 14.0
	S	26	4:45 5.1	11:17 14.0	17:30 5.5	23:55 14.7
	S	27	6:15 4.6	12:32 14.9	18:56 4.3	. . . . . .
	M	28	1:02 16.1	7:30 3.0	13:34 16.5	20:02 2.3
P	Tu	29	1:59 17.8	8:30 1.1	14:28 18.1	20:56 0.4
E	W	30	2:48 19.4	9:21 —0.7	15:15 19.6	21:42 —1.2
○	Th	31	3:36 20.6	10:05 —2.2	15:59 20.6	22:25 —2.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of W.	Day of Mo.	Time and Height of High and Low Water.				Moon.	Day of W.	Day of Mo.	Time and Height of High and Low Water.			
	F	1	4:19 20.3	10:48 —2.3	16:40 20.9	23:06 —2.3		S	1	4:40 20.2	11:07 —1.1	16:59 20.0	23:26 —1.1		W	1	5:39 17.6	12:06 1.4	17:56 17.7	. . . . . .
	S	2	5:02 21.3	11:26 —2.0	17:22 20.6	23:46 —1.8		M	2	5:20 19.5	11:45 —0.3	17:36 19.2	. . . . . .		Th	2	0:28 1.5	6:17 16.6	12:42 2.5	18:37 16.7
	S	3	5:42 20.5	12:05 —1.1	18:00 19.7	. . . . . .	S	Tu	3	0:07 —0.2	5:58 18.4	12:24 0.9	18:17 18.1		F	3	1:07 2.6	6:58 15.5	13:21 3.7	19:18 15.5
	M	4	0:27 —0.7	6:22 19.2	12:46 0.3	18:42 18.4		W	4	0:47 1.1	6:40 17.0	13:02 2.3	19:00 16.7		S	4	1:47 3.7	7:42 14.5	14:02 4.7	20:05 14.5
	Tu	5	1:07 0.7	7:07 17.6	13:27 1.9	19:27 16.8		Th	5	1:27 2.6	7:24 15.5	13:45 3.8	19:46 15.2	A	S	5	2:30 4.7	8:33 13.7	14:44 5.5	21:00 13.7
S	W	6	1:50 2.4	7:53 15.8	14:10 3.7	20:17 15.1		F	6	2:13 4.0	8:15 14.2	14:31 5.1	20:42 13.9	☾	M	6	3:17 5.3	9:32 13.2	15:37 6.0	22:02 13.4
☾	Th	7	2:39 4.1	8:50 14.2	15:00 5.2	21:21 13.7	☾	S	7	3:02 5.2	9:17 13.2	15:25 6.1	21:50 13.2	E	Tu	7	4:12 5.6	10:38 13.3	16:40 6.1	23:06 13.6
	F	8	3:38 5.4	10:02 13.0	16:08 6.3	22:40 13.1	A	S	8	4:05 5.9	10:32 12.7	16:36 6.6	23:05 13.1		W	8	5:16 5.5	11:40 13.9	17:48 15.7	. . . . . .
	S	9	4:54 6.2	11:21 12.8	17:34 6.6	23:55 13.3		M	9	5:18 6.1	11:40 13.1	17:52 6.3	. . . . . .		Th	9	0.04 14.3	6:20 4.9	12:32 14.8	18:51 4.7
A	S	10	6:18 6.1	12:28 13.2	18:55 5.9	. . . . . .		Tu	10	0:06 13.7	6:25 5.5	12:34 14.0	18:58 5.3		F	10	0:54 15.3	7:18 3.8	13:21 16.0	19:47 3.5
	M	11	0:54 14.0	7:26 5.1	13:22 14.2	19:53 4.6	E	W	11	0:57 14.7	7:22 4.4	13:19 15.1	19:50 4.0		S	11	1:44 16.4	8:12 2.7	14:08 17.2	20:37 2.2
	Tu	12	1:44 15.0	8:17 3.8	14:06 15.4	20:37 3.2		Th	12	1:41 15.8	8:11 3.1	14:03 16.4	20:33 2.7		S	12	2:30 17.5	9:00 1.5	14:54 18.3	21:25 0.9
E	W	13	2:25 16.2	8:57 2.4	14:44 16.6	21:16 2.0		F	13	2:22 16.9	8:52 1.9	14:44 17.6	21:14 1.5	●	M	13	3:16 18.5	9:47 0.5	15:39 19.2	22:10 0.0
	Th	14	3:02 17.3	9:32 1.3	15:20 17.8	21:50 1.0		S	14	3:02 17.9	9:34 0.9	15:22 18.6	21:52 0.5	N	Tu	14	4:00 19.2	10:30 0.0	16:23 19.8	22:55 —0.5
●	F	15	3:37 18.2	10:06 0.5	15:54 18.7	22:23 0.4	●	S	15	3:42 18.9	10:11 0.3	16:01 19.4	22:32 0.0		W	15	4:45 19.3	11:16 —0.1	17:05 19.8	23:38 —0.5
	S	16	4:11 18.9	10:40 0.2	16:28 19.1	22:56 0.2		M	16	4:21 19.2	10:51 0.1	16:40 19.5	23:10 —0.1		Th	16	5:28 19.1	11:59 0.2	17:52 19.5	. . . . . .
	S	17	4:45 19.2	11:14 0.2	17:02 19.2	23:30 0.3		Tu	17	5:00 19.2	11:30 0.3	17:19 19.4	23:50 0.1	P	F	17	0:22 —0.2	6:15 18.5	12:42 0.8	18:38 18.7
	M	18	5:18 19.0	11:47 0.6	17:36 18.9	. . . . . .	N	W	18	5:40 18.8	12:09 0.9	18:02 18.7	. . . . . .		S	18	1:10 0.4	7:06 17.6	13:30 1.6	19:32 17.7
	Tu	19	0:04 0.6	5:55 18.5	12:21 1.3	18:15 18.2		Th	19	0:32 0.7	6:25 17.9	12:52 1.7	18:48 17.7		S	19	1:58 1.4	8:02 16.7	14:21 2.5	20:31 16.7
N	W	20	0:40 1.4	6:35 17.5	12:58 2.3	18:56 17.2		F	20	1:17 1.6	7:15 16.8	13:37 2.7	19:42 16.6	☽ E	M	20	2:52 2.3	9:06 15.9	15:17 3.3	21:35 16.1
	Th	21	1:22 2.3	7:22 16.4	13:42 3.3	19:49 15.9		S	21	2:07 2.6	8:15 15.7	14:30 3.7	20:44 15.6		Tu	21	3:52 3.0	10:14 15.4	16:20 3.9	22:44 15.8
	F	22	2:11 3.3	8:21 15.1	14:36 4.3	20:52 14.8	☽ P	S	22	3:06 3.4	9:25 14.9	15:35 4.4	21:58 15.2		W	22	4.58 3.5	11:22 15.4	17:32 4.0	23:50 15.9
☽	S	23	3:12 4.2	9:35 14.3	15:47 5.1	22:14 14.4		M	23	4:14 3.8	10:41 14.8	16:50 4.4	23:13 15.4		Th	23	6:07 3.6	12:21 15.8	18:44 3.6	. . . . . .
	S	24	4:31 4.6	11:00 14.2	17:12 5.2	23:36 15.0	E	Tu	24	5:28 3.8	11:50 15.3	18:04 4.0	. . . . . .		F	24	0:50 16.2	7:15 3.1	13:19 16.4	19:47 2.7
	M	25	5:54 4.3	12:15 15.0	18:33 4.2	. . . . . .		W	25	0:17 16.2	6:40 3.2	12:49 16.2	19:12 2.9		S	25	1:45 16.7	8:14 2.3	14:11 17.1	20:42 1.8
P	Tu	26	0:42 16.2	7:07 3.1	13:14 16.4	19:40 2.5		Th	26	1:13 17.0	7:40 2.1	13:42 17.2	20:10 1.7		S	26	2:35 17.2	9:05 1.5	14:57 17.7	21:31 1.0
E	W	27	1:38 17.5	8:07 1.5	14:06 17.8	20:32 0.8		F	27	2:05 17.9	8:35 1.1	14:30 18.2	21:00 0.6	S ○	M	27	3:22 17.5	9:50 1.0	15:41 18.1	22:14 0.6
	Th	28	2:28 18.8	8:58 0.0	14:52 19.0	21:21 —0.5		S	28	2:43 18.6	9:24 0.3	15:15 18.8	21:46 —0.2		Tu	28	4:04 17.7	10:32 0.8	16:22 18.3	22:54 0.6
○	F	29	3:14 19.8	9:42 —1.0	15:36 19.9	22:05 —1.4	○	S	29	3:38 18.9	10:06 —0.1	15:57 19.2	22:27 —0.4		W	29	4:45 17.5	11:12 1.0	17:02 18.0	23:34 0.9
	S	30	3:58 12.3	10:25 —1.3	16:18 20.2	22:45 —1.5		M	30	4:20 18.8	10:48 0.0	16:38 19.1	23:10 —0.2		Th	30	5:22 17.1	11:48 1.6	17:38 17.5	. . . . . .
							S	Tu	31	5:00 18.4	11:27 0.5	17:17 18.5	23:49 0.5							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:10 1.6	5:56 16.5	12:24 2.3	18:14 16.9
	S	2	0:45 2.4	6:32 15.9	12:57 3.1	18:52 16.1
A	S	3	1:20 3.2	7:10 15.3	13:32 3.9	19:30 15.3
	M	4	1:56 3.9	7:50 14.7	14:07 4.6	20:11 14.6
E ☾	Tu	5	2:32 4.5	8:38 14.2	14:47 5.0	21:00 14.0
	W	6	3:15 4.9	9:33 13.8	15:36 5.3	22:00 13.8
	Th	7	4:10 5.2	10:37 13.9	16:40 5.5	23:05 14.0
	F	8	5:17 5.1	11:42 14.4	17:54 5.2	. . . . . .
	S	9	0:10 14.7	6:30 4.6	12:42 15.4	19:03 4.2
	S	10	1:08 15.7	7:35 3.5	13:37 16.6	20:05 2.8
	M	11	2:02 16.9	8:33 2.2	14:29 17.9	21:00 1.3
N	Tu	12	2:54 18.1	9:25 0.9	15:18 19.0	21:50 0.0
●	W	13	3:43 19.2	10:13 —0.2	16:05 19.9	22:37 —1.0
	Th	14	4:30 19.7	11:00 —0.7	16:52 20.4	23:23 —1.4
P	F	15	5:15 19.8	11:42 —0.8	17:37 20.5	. . . . . .
	S	16	0:07 —1.3	6:02 19.5	12:27 —0.5	18:25 20.0
	S	17	0:54 —0.8	6:50 18.8	13:13 0.2	19:15 19.0
E	M	18	1:40 0.2	7:42 17.8	14:00 1.2	20:08 17.9
☽	Tu	19	2:28 1.3	8:39 16.8	14:52 2.4	21:07 16.7
	W	20	3:24 2.4	9:40 15.8	15:50 3.4	22:12 15.8
	Th	21	4:25 3.5	10:50 15.2	16:59 4.2	23:22 15.3
	F	22	5:36 4.2	11:55 15.1	18:14 4.4	. . . . . .
	S	23	0:27 15.2	6:51 4.2	12:57 15.4	19:26 3.8
S	S	24	1:27 15.5	7:55 3.5	13:52 16.0	20:27 2.9
	M	25	2:20 16.0	8:50 2.5	14:42 16.8	21:17 1.9
	Tu	26	3:08 16.5	9:36 1.8	15:27 17.4	22:00 1.3
○	W	27	3:50 16.9	10:17 1.3	16:07 17.8	22:40 1.0
	Th	28	4:27 17.2	10:54 1.2	16:45 17.9	23:15 1.0
	F	29	5:02 17.1	11:30 1.4	17:18 17.8	23:50 1.4
A	S	30	5:35 17.0	12:02 1.8	17:50 17.4	. . . . . .
	S	31	0:20 1.9	6:04 16.6	12:32 2.4	18:22 16.9

AUGUST.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
E	M	1	0:50 2.4	6:37 16.3	13:02 3.0	18:54 16.3
	Tu	2	1:20 3.0	7:12 15.8	13:30 3.7	19:30 15.6
	W	3	1:51 3.7	7:52 15.2	14:05 4.1	20:12 15.0
☾	Th	4	2:29 4.1	8:39 14.6	14:49 4.6	21:04 14.3
	F	5	3:19 4.7	9:40 14.0	15:47 5.1	22:10 13.0
	S	6	4:24 5.2	10:54 14.0	17:02 5.3	23:28 14.1
	S	7	5:45 5.2	12:09 14.8	18:25 4.7	. . . . . .
N	M	8	0:40 15.0	7:03 4.2	13:11 16.0	19:37 3.3
	Tu	9	1:40 16.4	8:10 2.7	14:08 17.5	20:39 1.6
	W	10	2:36 17.8	9:07 1.0	15:00 19.0	21:32 —0.1
●	Th	11	3:26 19.2	9:55 —0.5	15:49 20.2	22:20 —1.4
P	F	12	4:12 20.2	10:40 —1.4	16:36 21.0	23:04 —2.2
	S	13	5:09 20.6	11:25 —1.8	17:20 21.4	23:48 —2.2
E	S	14	5:42 20.5	12:08 —1.7	18:05 21.0	. . . . . .
	M	15	0:31 —1.7	6:28 19.8	12:50 —1.0	18:52 20.0
	Tu	16	1:16 —0.6	7:15 18.8	13:37 0.3	19:42 18.6
	W	17	2:02 0.8	8:08 17.4	14:25 1.8	20:36 17.0
☽	Th	18	2:54 2.3	9:05 16.0	15:20 3.2	21:40 15.5
	F	19	3:52 3.8	10:14 14.9	16:27 4.4	22:54 14.5
	S	20	5:05 5.0	11:27 14.4	17:47 5.0	. . . . . .
S	S	21	0:05 14.3	6:25 5.1	12:36 14.6	19:07 4.7
	M	22	1:10 14.5	7:37 4.4	13:36 15.2	20:12 3.7
	Tu	23	2:06 15.2	8:34 3.3	14:27 16.0	21:02 2.6
	W	24	2:52 16.0	9:20 2.2	15:10 16.9	21:42 1.7
	Th	25	3:31 16.6	9:57 1.4	15:48 17.5	22:20 1.1
○	F	26	4:05 17.2	10:34 1.0	16:22 18.0	22:51 0.9
A	S	27	4:37 17.6	11:05 1.0	16:54 18.1	23:22 0.9
E	S	28	5:09 17.7	11:36 1.2	17:24 18.0	23:52 1.2
	M	29	5:35 17.6	12:04 1.6	17:50 17.7	. . . . . .
	Tu	30	0:20 1.7	6:05 17.3	12:31 2.2	18:22 17.2
	W	31	0:47 2.4	6:37 16.8	13:00 2.8	18:55 16.5

SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	Th	1	1:17 3.0	7:15 16.0	13:34 3.4	19:35 15.8
	F	2	1:53 3.7	8:00 15.2	14:15 4.1	20:26 14.7
☾	S	3	2:40 4.4	8:58 14.3	15:10 4.8	21:33 13.9
N	S	4	3:45 5.3	10:17 13.8	16:27 5.3	22:58 13.8
	M	5	5:12 5.6	11:41 14.4	17:59 5.0	. . . . . .
	Tu	6	0:18 14.6	6:39 4.7	12:51 15.6	19:17 3.6
	W	7	1:22 16.0	7:51 3.0	13:50 17.3	20:20 1.7
	Th	8	2:17 17.7	8:47 1.0	14:42 19.0	21:13 —0.3
P ●	F	9	3:07 19.4	9:36 —0.7	15:30 20.5	22:00 —1.2
E	S	10	3:58 20.5	10:21 —1.9	16:15 21.5	22:43 —2.5
	S	11	4:37 21.2	11:04 —2.5	17:00 21.8	23:26 —2.6
	M	12	5:20 21.1	11:46 —2.3	17:40 21.4	. . . . . .
	Tu	13	0:07 2.0	6:02 20.4	12:27 —1.5	18:26 20.3
	W	14	0:50 —0.7	6:47 19.2	13:12 —0.1	19:12 18.7
	Th	15	1:34 0.9	7:35 17.6	13:57 1.6	20:04 16.8
☽	F	16	2:23 2.7	8:30 15.9	14:50 3.3	21:06 15.1
S	S	17	3:18 4.3	9:38 14.5	15:55 4.7	22:22 13.9
	S	18	4:32 5.5	10:59 13.9	17:15 5.5	23:41 13.5
	M	19	5:56 5.8	12:12 14.0	18:41 5.3	. . . . . .
	Tu	20	0:50 13.9	7:15 5.1	13:15 14.7	19:48 4.3
	W	21	1:44 14.6	8:12 3.9	14:04 15.6	20:37 3.1
	Th	22	2:29 15.5	8:55 2.6	14:46 16.5	21:18 2.0
A	F	23	3:04 16.5	9:33 1.7	15:22 17.4	21:51 1.2
○ E	S	24	3:37 17.5	10:06 1.0	15:53 18.0	22:22 0.8
	S	25	4:08 18.0	10:36 0.7	16:24 18.5	22:52 0.6
	M	26	4:39 18.4	11:07 0.7	16:55 18.5	23:22 0.8
	Tu	27	5:08 18.4	11:37 1.0	17:22 18.4	23:52 1.3
	W	28	5:37 18.1	12:06 1.5	17:54 17.9	. . . . . .
	Th	29	0:20 1.9	6:12 17.5	12:35 2.2	18:29 17.2
	F	30	0:52 2.7	6:47 16.7	13:10 2.9	19:08 16.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs which is the datum of soundings on the French Charts for this region and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil. for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	1:28	7:32	13:54	20:00		Tu	1	3:09	9:35	15:54	22:22		Th	1	4:08	10:33	16:48	23:14
			3.6	15.6	3.7	15.0				5.1	14.2	4.6	13.9				4.6	15.1	3.9	14.9
N	S	2	2:17	8:31	14:51	21:10		W	2	4:31	11:00	17:15	23:42	E	F	2	5:25	11:44	18:02	. . .
☾			4.5	14.5	4.5	14.0				5.4	14.5	4.5	14.6				4.4	15.7	3.6	. . .
	M	3	3:22	9:52	16:08	22:39		Th	3	5:55	12:11	18:32	. . .	P	S	3	0:18	6:37	12:45	19:09
			5.4	13.8	5.2	13.7				4.7	15.6	3.5	. . .				15.8	3.5	16.6	2.7
	Tu	4	4:50	11:20	17:36	. . .	E	F	4	0:45	7:05	13:10	19:35		S	4	1:14	7:39	13:40	20:07
			5.7	14.3	4.9	. . .				15.9	3.2	17.0	2.0				16.8	2.3	17.5	1.5
	W	5	0:00	6:20	12:32	18:57	P	S	5	1:37	8:03	14:00	20:28		M	5	2:04	8:33	14:30	20:58
			14.5	4.8	15.5	3.6				17.4	1.5	18.5	0.5				17.9	1.0	18.4	0.5
	Th	6	1:05	7:30	13:31	20:00		S	6	2:25	8:52	14:47	21:17		Tu	6	2:51	9:24	15:16	21:45
			16.0	3.1	17.2	1.7				18.6	—0.1	19.6	—0.8				18.8	0.0	19.0	—0.2
	F	7	2:00	8:27	14:22	20:52	●	M	7	3:10	9:38	15:32	22:00	●	W	7	3:37	10:08	16:00	22:27
			17.6	1.1	18.9	—0.1				19.9	—1.2	20.3	—1.4				19.4	—0.6	19.2	—0.4
P	S	8	2:47	9:15	15:09	21:39		Tu	8	3:54	10:22	16:16	22:42	S	Th	8	4:18	10:50	16:41	23:09
E			19.2	—1.3	20.3	—1.5				20.5	—1.7	20.5	—1.4				19.6	—0.7	18.9	—0.1
●	S	9	3:32	9:58	15:54	22:21		W	9	4:36	11:05	16:58	23:24		F	9	5:00	11:30	17:23	23:48
			20.5	—2.1	21.3	—2.3				20.5	—1.5	20.0	—0.9				19.3	—0.2	18.3	0.6
	M	10	4:14	10:41	16:37	23:02		Th	10	5:17	11:46	17:38	. . .		S	10	5:39	12:11	18:02	. . .
			21.2	—2.4	21.6	—2.3				20.0	—0.8	19.1	. . .				18.6	0.6	17.4	. . .
	Tu	11	4:57	11:24	17:19	23:44	S	F	11	0:04	5:57	12:28	18:21		S	11	0:28	6:21	12:52	18:42
			21.1	—2.3	21.0	—1.6				0.1	18.9	0.3	17.8				1.6	17.6	1.7	16.3
	W	12	5:37	12:05	18:00	. . .		S	12	0:47	6:42	13:12	19:02		M	12	1:07	7:03	13:32	19:26
			20.4	—1.4	19.9	. . .				1.5	17.6	1.7	16.3				2.7	16.5	2.9	15.2
	Th	13	0:25	6:20	12:48	18:45		S	13	1:30	7:30	13:57	20:00		Tu	13	1:48	7:49	14:16	20:16
			—0.4	19.2	0.0	18.3				3.0	16.0	3.3	14.8				3.9	15.2	4.1	14.2
S	F	14	1:08	7:06	13:33	19:34		M	14	2:17	8:27	14:50	21:02	☽	W	14	2:33	8:42	15:02	21:14
			1.2	17.6	1.7	16.5				4.4	14.6	4.6	13.6				5.0	14.2	5.0	13.5
	S	15	1:54	7:59	14:23	20:32	☽	Tu	15	3:14	9:34	15:51	22:17	A	Th	15	3:22	9:42	15:55	22:18
			2.9	15.9	3.4	14.8				5.6	13.6	5.5	13.0	E			5.7	13.5	5.5	13.2
☽	S	16	2:48	9:02	15:22	21:45		W	16	4:22	10:50	17:02	23:27		F	16	4:21	10:48	16:56	23:24
			4.6	14.4	4.7	13.5				6.2	13.4	5.9	13.2				6.1	13.4	5.8	13.5
	M	17	3:55	10:20	16:37	23:07	A	Th	17	5:37	11:52	18:12	. . .		S	17	5:30	11:47	18:02	. . .
			5.8	13.6	5.7	13.1				6.2	13.7	5.6	. . .				6.0	13.8	5.5	. . .
	Tu	18	5:16	11:38	18:00	. . .	E	F	18	0:22	6:42	12:44	19:09		S	18	0:17	6:36	12:40	19:03
			6.2	13.6	5.7	. . .				13.8	5.4	14.4	4.7				14.2	5.3	14.5	4.6
	W	19	0:16	6:36	12:42	19:10		S	19	1:09	7:36	13:28	19:58		M	19	1:07	7:33	13:28	19:58
			13.4	5.7	14.2	5.0				14.3	4.3	15.4	3.6				15.2	4.2	15.5	3.5
A	Th	20	1:11	7:36	13:31	20:00		S	20	1:50	8:21	14:10	20:38		Tu	20	1:54	8:24	14:15	20:46
			14.2	4.6	15.0	3.8				15.9	3.1	16.4	2.4				16.4	3.0	16.6	2.3
	F	21	1:55	8:24	14:12	20:42		M	21	2:30	9:00	14:47	21:18		W	21	2:39	9:10	15:00	21:30
			15.3	3.3	16.0	2.6				17.0	2.0	17.3	1.5				17.5	1.7	17.7	1.3
E	S	22	2:31	9:00	14:49	21:17		Tu	22	3:07	9:38	15:26	21:55	○	Th	22	3:22	9:54	15:42	22:14
			16.4	2.2	17.0	1.7				18.0	1.1	18.2	0.8				18.5	0.6	18.6	0.5
	S	23	3:04	9:35	15:21	21:51	○	W	23	3:45	10:15	16:02	22:32	N	F	23	4:04	10:35	16:25	22:55
			17.4	1.3	17.9	0.9				18.8	0.6	18.7	0.5				19.3	—0.1	19.0	0.1
○	M	24	3:38	10:07	15:54	22:22		Th	24	4:22	10:52	16:40	23:10		S	24	4:46	11:17	17:07	23:36
			18.3	0.7	18.5	0.5				19.1	0.3	18.9	0.6				19.7	—0.4	19.2	0.2
	Tu	25	4:11	10:40	16:26	22:55	N	F	25	5:00	11:31	17:17	23:47		S	25	5:28	12:00	17:50	. . .
			18.8	0.5	18.7	0.6				19.2	0.3	18.7	1.0				19.6	—0.3	18.8	. . .
	W	26	4:43	11:14	17:00	23:28		S	26	5:38	12:11	18:00	. . .		M	26	0:18	6:13	12:44	18:38
			18.9	0.6	18.7	0.9				18.8	0.7	18.0	. . .				0.5	19.1	0.2	19.2
	Th	27	5:15	11:45	17:33	. . .		S	27	0:27	6:22	12:52	18:47	P	Tu	27	1:02	7:02	13:30	19:28
			18.8	1.0	18.3	. . .				1.7	18.0	1.4	17.1				1.2	18.3	0.9	17.2
	F	28	0:01	5:52	12:20	18:10		M	28	1:10	7:10	13:40	19:40		W	28	1:49	7:56	14:19	20:27
			1.5	18.2	1.6	17.6				2.5	16.9	2.3	16.0				2.1	17.2	1.9	16.3
N	S	29	0:36	6:32	12:58	18:54		Tu	29	2:00	8:08	14:32	20:45	E	Th	29	2:41	8:55	15:14	21:31
			2.4	17.2	2.3	16.5				3.5	15.9	3.1	15.1	☾			3.0	16.3	2.7	15.5
	S	30	1:17	7:19	13:45	19:48	☾	W	30	2:58	9:17	15:36	22:00		F	30	3:40	10:02	16:17	22:41
			3.3	16.1	3.2	15.3				4.2	15.2	3.7	14.6				3.7	15.7	3.4	15.2
☾	M	31	2:05	8:17	14:40	20:58									S	31	4:50	11:15	17:30	23:50
			4.2	14.9	4.1	14.3											4.2	15.5	3.8	15.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the French Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:36	7:26	15:05	19:50
			2.7	21.0	1.7	21.4
N	S	2	3:30	8:18	15:56	20:42
			1.4	22.4	0.3	22.5
○	S	3	4:21	9:08	16:46	21:34
			0.4	23.3	—0.6	23.3
P	M	4	5:10	9:55	17:33	22:21
			—0.2	23.9	—1.2	23.6
	Tu	5	5:56	10:40	18:18	23:05
			—0.3	23.9	—1.1	23.4
	W	6	6:41	11:26	19:02	23:50
			0.0	23.4	—0.7	22.7
	Th	7	7:27	12:12	19:50	. . .
			0.7	22.6	0.2	. . .
E	F	8	0:37	8:14	13:00	20:40
			21.9	1.6	21.4	1.3
☾	S	9	1:26	9:04	13:50	21:30
			20.6	2.7	19.9	2.5
	S	10	2:20	10:00	14:46	22:30
			19.1	3.8	18.5	3.7
	M	11	3:21	11:05	15:53	23:37
			18.0	4.6	17.1	4.6
	Tu	12	4:30	12:18	17:07	. . .
			17.0	4.9	16.5	. . .
	W	13	0:50	5:42	13:30	18:19
			4.6	16.1	4.3	17.0
	Th	14	1:58	6:48	14:33	19:20
			4.0	17.8	3.2	17.8
S	F	15	2:58	7:45	15:27	20:12
			3.1	18.9	2.0	18.9
	S	16	3:50	8:32	16:11	20:59
			2.0	19.8	1.0	19.8
●	S	17	4:32	9:17	16:54	21:39
			1.4	20.4	0.4	20.3
	M	18	5:10	9:52	17:29	22:11
			1.2	20.9	0.5	20.7
A	Tu	19	5:42	10:24	18:00	22:43
			1.5	21.1	0.9	20.9
	W	20	6:12	10:55	18:30	23:14
			2.0	21.3	1.3	21.2
	Th	21	6:45	11:26	18:59	23:42
			2.4	21.4	1.8	21.4
	F	22	7:15	11:56	19:31	. . .
			2.8	21.5	2.1	. . .
E	S	23	0:16	7:49	12:30	20:07
			21.4	3.0	21.4	2.4
	S	24	0:54	8:27	13:10	20:47
			21.3	3.4	20.9	2.9
☽	M	25	1:34	9:09	13:52	21:32
			20.9	3.8	20.1	3.4
	Tu	26	2:20	10:00	14:45	22:25
			19.9	4.4	19.0	4.1
	W	27	3:20	11:05	15:52	23:34
			19.2	4.9	18.4	4.7
	Th	28	4:30	12:17	17:07	. . .
			18.6	4.8	18.3	. . .
N	F	29	0:50	5:46	13:33	18:22
			4.5	19.0	4.0	18.9
	S	30	2:05	6:56	14:40	19:30
			3.6	20.2	2.4	20.5
	S	31	3:08	7:57	15:38	20:27
			2.0	21.7	0.5	22.1

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	4:05	8:51	16:30	21:17
			0.4	23.2	—1.0	23.4
P	Tu	2	4:55	9:42	17:20	22:09
			—0.8	24.0	—2.0	23.9
	W	3	5:42	10:28	18:05	22:53
			—1.2	24.5	—2.3	24.2
E	Th	4	6:27	11:12	18:49	23:36
			—1.4	24.3	—2.0	23.7
	F	5	7:11	11:56	19:33	. . .
			—0.8	23.5	—1.2	. . .
	S	6	0:20	7:56	12:40	20:19
			22.8	0.1	22.4	0.1
	S	7	1:05	8:42	13:30	21:07
			21.5	1.6	20.8	1.9
☾	M	8	1:52	9:30	14:17	21:55
			20.0	3.1	18.5	3.5
	Tu	9	2:47	10:28	15:15	22:59
			18.2	4.6	17.2	5.1
	W	10	3:50	11:40	16:29	. . .
			16.8	5.5	15.8	. . .
S	Th	11	0:12	5:07	12:57	17:48
			5.8	15.9	5.4	15.6
	F	12	1:30	6:22	14:10	18:57
			5.3	16.2	4.4	16.4
	S	13	2:36	7:25	15:09	19:55
			5.3	17.4	3.2	17.6
	S	14	3:30	8:13	15:54	20:38
			3.1	18.4	2.1	18.8
	M	15	4:14	8:58	16:35	21:18
			2.0	19.7	1.1	19.7
A	Tu	16	4:51	9:34	17:07	21:50
●			1.3	20.6	0.7	20.6
	W	17	5:22	10:02	17:36	22:20
			1.3	21.2	0.7	21.3
	Th	18	5:50	10:31	18:04	22:48
			1.6	21.8	0.9	22.0
E	F	19	6:18	11:00	18:32	23:17
			1.7	22.1	1.1	22.4
	S	20	6:48	11:30	19:02	23:48
			1.7	21.6	1.2	22.6
	S	21	7:20	12:02	19:36	. . .
			2.0	22.0	1.6	. . .
	M	22	0:22	7:55	12:38	20:14
			22.0	2.3	21.4	2.1
	Tu	23	1:02	8:36	13:20	20:58
			21.2	2.9	20.2	3.1
☽	W	24	1:47	9:22	14:09	21:50
			20.4	3.6	19.7	3.9
	Th	25	2:40	10:24	15:14	22:56
			19.6	4.4	18.4	4.9
N	F	26	3:50	11:38	16:32	. . .
			18.5	5.0	17.9	. . .
	S	27	0:17	5:12	13:02	17:55
			5.1	18.3	4.4	18.4
	S	28	1:40	6:32	14:19	19:10
			4.4	19.3	2.5	19.7
	M	29	2:50	7:40	15:22	20:11
			2.5	20.9	0.7	21.7

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	3:48	8:35	16:16	21:02
			0.4	22.9	—1.2	23.4
○	W	2	4:40	9:25	17:03	21:50
			—1.2	24.2	—2.4	23.3
E	Th	3	5:27	10:12	17:50	23:35
			—1.9	23.9	—3.0	23.1
	F	4	6:10	10:55	18:30	23:17
			—2.2	23.3	—2.5	22.9
	S	5	6:52	11:36	19:10	23:58
			—1.7	23.8	—1.6	23.1
	S	6	7:35	12:18	19:55	. . .
			—0.8	22.6	0.1	. . .
	M	7	0:42	8:18	13:02	20:40
			21.8	1.4	20.7	2.0
	Tu	8	1:26	9:05	13:50	21:28
			19.9	2.8	19.2	3.7
☾	W	9	2:15	9:55	14:42	22:20
			18.5	4.4	17.2	5.3
S	Th	10	3:14	11:00	15:50	23:34
			16.7	5.7	15.7	6.4
	F	11	4:27	12:18	17:12	. . .
			15.5	6.1	15.1	. . .
	S	12	0:56	5:48	13:36	18:26
			6.1	15.5	5.4	14.8
	S	13	2:08	6:55	14:38	19:26
			5.2	16.4	4.1	17.0
A	M	14	3:04	7:47	15:25	20:10
			3.8	17.9	2.8	18.4
	Tu	15	3:47	8:30	16:05	20:50
			2.6	19.0	1.7	19.6
	W	16	4:25	9:06	16:40	21:24
			1.7	20.3	0.9	20.8
●	Th	17	4:55	9:37	17:09	21:51
E			1.2	21.3	0.7	21.6
	F	18	5:24	10:05	17:37	22:21
			1.1	22.1	0.7	22.4
	S	19	5:52	10:35	18:06	22:50
			1.1	22.7	1.0	22.8
	S	20	6:22	11:05	18:38	23:20
			1.5	22.8	1.2	22.8
	M	21	6:54	11:37	19:10	23:55
			1.6	22.4	1.6	22.4
	Tu	22	7:31	12:14	19:48	. . .
			2.0	21.7	2.3	. . .
	W	23	0:35	8:10	12:55	20:33
			21.4	2.6	20.8	3.1
N	Th	24	1:20	8:57	13:45	21:22
☽			20.6	3.4	20.2	4.1
	F	25	2:15	9:55	14:48	22:30
			19.6	4.4	18.7	5.1
	S	26	3:22	11:10	16:05	23:58
			18.3	4.9	17.9	5.6
	S	27	4:47	12:37	17:33	. . .
			17.8	4.6	17.9	. . .
	M	28	1:20	6:10	13:57	18:49
			4.6	18.6	3.1	19.4
P	Tu	29	2:32	7:20	15:02	19:50
			2.6	20.4	0.8	21.4
E	W	30	3:30	8:15	15:55	20:40
			0.6	22.2	—0.8	22.7
○	Th	31	4:19	9:03	16:45	21:30
			—1.1	23.4	—2.1	23.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the French Charts for this region, and which is 11.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2°20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	5:06	9:51	17:28	22:15	
			−2.0	24.2	−2.6	23.9	
	S	2	5:50	10:33	18:08	22:54	
			−2.2	24.4	−2.2	23.7	
	S	3	6:30	11:15	18:50	23:35	
			−1.6	23.6	−1.2	23.0	
	M	4	7:10	11:56	19:30	. . .	
			−0.5	22.7	0.3	. . .	
	Tu	5	0:16	7:53	12:40	20:14	
			21.8	1.0	20.9	2.2	
S	W	6	1:00	8:37	13:25	21:00	
			20.2	3.8	19.2	4.0	
☾	Th	7	1:48	9:24	14:11	21:48	
			18.6	4.3	17.6	5.4	
	F	8	2:37	10:21	15:12	22:55	
			16.9	5.7	16.0	6.6	
	S	9	3:47	11:33	16:26	. . .	
			15.6	6.3	15.1	. . .	
A	S	10	0:10	5:00	12:48	17:40	
			6.7	15.1	6.0	15.4	
	M	11	1:22	6:12	13:52	18:41	
			5.9	15.9	4.8	16.6	
	Tu	12	2:22	7:05	14:44	19:30	
			4.7	17.3	3.6	18.1	
E	W	13	3:37	7:51	15:27	20:12	
			3.3	18.7	2.3	19.4	
	Th	14	3:48	8:32	16:05	20:50	
			2.3	20.1	1.6	20.9	
●	F	15	4:25	9:05	16:38	21:20	
			1.3	21.3	1.0	21.7	
	S	16	4:56	9:35	17:09	21:53	
			0.9	22.2	0.7	22.7	
	S	17	5:27	10:10	17:42	22:25	
			1.0	22.8	0.8	23.1	
	M	18	6:00	10:42	18:15	23:00	
			1.0	22.9	1.1	23.0	
	Tu	19	6:35	11:18	18:50	23:36	
			1.2	22.8	1.5	22.6	
N	W	20	7:12	11:57	19:31	. . .	
			1.7	21.9	2.4	. . .	
	Th	21	0:17	7:52	12:38	20:15	
			21.5	2.5	21.1	3.2	
	F	22	1:02	8:41	13:30	21:07	
			20.6	3.2	19.8	4.3	
☽	S	23	1:56	9:39	14:32	22:14	
			19.4	4.1	18.5	5.3	
	S	24	3:05	10:52	15:50	23:35	
			18.3	4.7	17.8	5.5	
	M	25	4:27	12:15	17:11	. . .	
			17.7	4.5	18.0	. . .	
P	Tu	26	0:57	5:42	13:34	18:25	
			4.6	18.4	3.1	19.1	
E	W	27	2:07	6:55	14:37	19:25	
			2.7	19.8	1.4	20.7	
	Th	28	3:05	7:52	15:30	20:17	
			0.8	21.3	−0.4	22.3	
○	F	29	3:55	8:42	16:18	21:05	
			−0.7	22.8	−1.3	23.4	
	S	30	4:44	9:30	17:05	21:50	
			−1.6	23.4	−1.6	23.4	

MAY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	5:27	10:12	17:46	22:31	
			−1.7	23.3	−1.2	23.1	
	M	2	6:07	10:55	18:27	23:12	
			−1.2	22.8	−0.4	22.4	
S	Tu	3	6:50	11:35	19:08	23:53	
			−0.1	21.7	1.1	21.4	
	W	4	7:30	12:16	19:50	. . .	
			1.2	20.6	2.5	. . .	
	Th	5	0:36	8:12	13:00	20:34	
			20.2	2.7	19.3	4.0	
	F	6	1:20	8:57	13:45	21:20	
			18.9	4.1	17.9	5.3	
☾	S	7	2:06	9:45	14:35	22:12	
			17.5	5.1	16.7	6.2	
A	S	8	3:00	10:44	15:36	23:19	
			16.3	6.1	15.9	6.7	
	M	9	4:07	11:50	16:42	. . .	
			15.6	6.1	15.8	. . .	
	Tu	10	0:25	5:12	12:54	17:46	
			6.3	16.0	5.5	16.6	
E	W	11	1:27	6:12	13:50	18:37	
			5.4	16.9	4.4	17.9	
	Th	12	2:18	7:02	14:42	19:27	
			4.1	18.4	3.4	19.4	
	F	13	3:05	7:50	15:25	20:10	
			2.9	19.8	2.3	20.7	
	S	14	3:47	8:30	16:04	20:50	
			1.9	20.9	1.5	21.7	
●	S	15	4:27	9:09	16:42	21:38	
			1.3	21.8	1.3	22.6	
	M	16	5:03	9:47	17:20	22:05	
			0.8	22.4	1.1	22.5	
	Tu	17	5:40	10:25	18:00	22:43	
			0.8	22.6	1.2	23.1	
N	W	18	6:20	11:06	18:40	23:24	
			1.0	22.4	2.1	22.6	
	Th	19	7:02	11:47	19:22	. . .	
			1.4	21.9	2.5	. . .	
	F	20	0:07	7:45	12:30	20:06	
			21.7	2.3	21.0	3.4	
	S	21	0:52	8:32	13:22	21:00	
			20.4	2.9	19.6	4.1	
☽ P	S	22	1:50	9:30	14:24	22:05	
			19.6	3.7	18.9	4.8	
	M	23	2:52	10:37	15:34	23:17	
			18.4	4.1	18.0	5.2	
E	Tu	24	4:08	11:51	16:47	. . .	
			18.0	4.1	18.0	. . .	
	W	25	0:32	5:20	13:04	17:57	
			4.4	18.1	3.4	18.9	
	Th	26	1:39	6:27	14:08	18:58	
			3.1	19.2	2.3	20.2	
	F	27	2:40	7:27	15:04	19:51	
			1.6	20.3	0.9	21.2	
	S	28	3:32	8:20	15:57	20:42	
			0.3	21.4	0.4	21.9	
○	S	29	4:24	9:08	16:44	21:30	
			−0.6	22.1	−0.2	22.5	
	M	30	5:08	9:53	17:27	22:11	
			−0.8	22.1	−0.4	22.1	
S	Tu	31	5:50	10:36	18:07	22:52	
			−0.4	21.8	0.6	21.7	

JUNE.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	W	1	6:30	11:15	18:47	23:31	
			0.2	21.1	1.8	21.2	
	Th	2	7:09	11:55	19:27	. . .	
			1.6	20.2	3.1	. . .	
	F	3	0:12	7:48	12:35	20:08	
			20.2	2.6	19.4	3.9	
	S	4	0:52	8:29	13:15	20:51	
			19.4	3.6	18.7	4.9	
A	S	5	1:37	9:13	14:00	21:37	
			18.4	4.6	18.0	5.6	
☾	M	6	2:23	10:00	14:49	22:17	
			17.6	5.1	17.5	5.8	
E	Tu	7	3:14	10:52	15:45	23:25	
			17.1	5.4	17.2	6.1	
	W	8	4:11	11:50	16:42	. . .	
			16.9	5.4	17.5	. . .	
	Th	9	0:26	5:12	12:52	17:42	
			5.5	17.4	4.9	18.0	
	F	10	1:25	6:10	13:50	18:37	
			4.8	18.0	4.1	19.2	
	S	11	2:20	7:05	14:44	19:30	
			3.6	19.5	3.1	20.5	
	S	12	3:10	7:56	15:32	20:20	
			2.4	20.7	2.2	21.6	
●	M	13	3:58	8:45	16:18	21:05	
			1.4	21.9	1.6	22.4	
N	Tu	14	4:42	9:28	17:02	21:49	
			0.9	22.6	1.1	23.0	
	W	15	5:25	10:12	17:47	22:31	
			0.4	22.6	1.2	22.8	
	Th	16	6:08	10:57	18:30	23:15	
			0.6	22.4	1.7	22.7	
P	F	17	6:52	11:39	19:15	. . .	
			1.0	22.0	2.1	. . .	
	S	18	0:00	7:37	12:25	20:00	
			22.1	1.5	21.2	2.8	
	S	19	0:48	8:26	13:15	20:51	
			21.0	2.1	20.3	3.3	
☽ E	M	20	1:40	9:20	14:11	21:50	
			20.1	2.7	19.5	4.0	
	Tu	21	2:36	10:19	15:12	22:55	
			18.9	3.4	18.4	5.1	
	W	22	3:42	11:25	16:19	. . .	
			18.1	4.0	17.9	. . .	
	Th	23	0:14	4:52	12:35	17:28	
			4.6	17.6	3.9	18.2	
	F	24	1:13	6:02	13:42	18:33	
			3.7	18.1	3.2	18.9	
	S	25	2:18	7:03	14:42	19:30	
			2.7	19.0	2.4	19.9	
	S	26	3:14	8:00	15:38	20:23	
			1.5	20.0	1.6	20.6	
S ○	M	27	4:02	8:51	16:27	21:12	
			0.7	20.6	1.1	21.2	
	Tu	28	4:50	9:37	17:10	21:55	
			0.2	20.6	0.5	21.5	
	W	29	5:33	10:17	17:50	22:35	
			0.1	20.8	1.4	21.3	
	Th	30	6:12	10:55	18:27	23:10	
			0.6	20.7	2.0	20.9	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the French Charts for this region, and which is 11.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon: for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	6:47 1.5	11:32 20.3	19:04 2.8	23:45 20.5
	S	2	7:23 2.2	12:07 20.1	19:40 3.6	. . . . . .
A	S	3	0:22 20.1	7:59 3.2	12:45 19.8	20:17 4.1
	M	4	1:00 19.5	8:35 3.8	13:22 19.5	20:58 4.6
E ☾	Tu	5	1:40 19.1	9:18 4.4	14:05 19.1	21:40 5.1
	W	6	2:25 18.5	10:02 4.6	14:50 18.6	22:30 5.3
	Th	7	3:15 18.0	10:54 4.8	15:45 18.3	23:28 5.6
	F	8	4:15 17.8	11:52 4.9	16:46 18.5	. . . . . .
	S	9	0:32 5.0	5:20 18.3	13:00 4.6	17:52 19.0
	S	10	1:36 4.1	6:23 18.9	14:03 3.9	18:52 20.0
	M	11	2:35 2.9	7:22 20.1	15:02 2.7	19:50 21.2
N	Tu	12	3:30 1.7	8:18 21.4	15:58 1.9	20:43 22.2
●	W	13	4:21 0.4	9:18 22.2	16:46 1.0	21:33 22.9
	Th	14	5:12 —0.1	9:58 22.8	17:34 0.4	22:19 23.4
P	F	15	5:57 —0.4	10:45 22.9	18:19 0.6	23:05 23.4
	S	16	6:42 —0.4	11:29 22.7	19:04 1.0	23:50 22.6
	S	17	7:27 0.2	12:14 22.2	19:52 1.4	. . . . . .
E	M	18	0:37 21.9	8:14 1.0	13:00 21.3	20:38 2.3
☽	Tu	19	1:27 20.7	9:08 2.0	13:52 20.0	21:29 3.1
	W	20	2:15 19.8	9:55 3.0	14:47 18.9	22:28 4.1
	Th	21	3:14 18.0	10:58 4.1	15:50 17.8	23:35 4.5
	F	22	4:24 17.0	12:07 4.6	17:00 17.2	. . . . . .
	S	23	0:48 4.6	5:37 16.9	13:18 4.4	18:12 17.7
S	S	24	1:58 3.7	6:45 17.6	14:25 3.7	19:14 18.5
	M	25	2:59 2.6	7:45 18.7	15:22 2.7	20:07 19.4
	Tu	26	3:48 1.5	8:35 19.5	16:11 1.7	20:57 20.2
○	W	27	4:34 0.7	9:21 20.1	16:55 1.5	21:38 20.7
	Th	28	5:16 0.3	9:59 20.4	17:32 1.4	22:14 20.8
	F	29	5:49 0.7	10:34 20.4	18:04 2.0	22:47 21.0
A	S	30	6:21 1.5	11:05 20.6	18:37 2.5	23:18 21.1
	S	31	6:52 1.9	11:37 20.8	19:08 3.0	23:50 20.7

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	7:22 2.5	12:09 20.9	19:40 3.4	. . . . . .
	Tu	2	0:22 20.7	7:57 3.0	12:42 20.7	20:16 3.7
	W	3	0:59 20.3	8:35 3.6	13:20 20.3	20:55 4.3
☾	Th	4	1:40 19.7	9:17 3.9	14:04 19.7	21:40 4.8
	F	5	2:25 19.1	10:04 4.3	14:56 19.1	22:38 5.0
	S	6	3:25 18.4	11:05 4.8	16:00 18.8	23:45 5.2
	S	7	4:35 18.0	12:17 5.1	17:12 18.6	. . . . . .
N	M	8	0:59 4.7	5:47 18.6	13:30 4.4	18:22 19.4
	Tu	9	2:08 3.4	6:58 19.8	14:37 3.2	19:27 20.8
	W	10	3:10 1.7	7:58 21.4	15:36 1.6	20:23 22.3
●	Th	11	4:03 0.2	8:52 22.5	16:29 0.4	21:16 23.3
P	F	12	4:53 —0.8	9:41 23.3	17:18 —0.3	22:04 23.7
	S	13	5:41 —1.4	10:29 23.4	18:04 —0.4	22:50 23.8
E	S	14	6:26 —1.4	11:13 23.4	18:48 —0.9	23:33 23.6
	M	15	7:10 —0.7	11:57 22.9	19:32 0.4	. . . . . .
	Tu	16	0:17 22.6	7:54 0.1	12:41 21.8	20:19 1.7
	W	17	1:05 21.4	8:42 1.6	13:28 22.3	21:05 2.8
☽	Th	18	1:52 19.7	9:30 3.0	14:20 19.0	22:00 4.0
	F	19	2:47 17.8	10:30 4.5	15:22 17.4	23:07 5.1
	S	20	3:57 16.3	11:40 5.5	16:35 16.4	. . . . . .
S	S	21	0:24 5.2	5:15 15.9	12:57 5.3	17:50 16.5
	M	22	1:38 4.4	6:27 16.4	14:08 4.4	18:58 17.5
	Tu	23	2:43 3.5	7:30 17.8	15:07 3.3	19:52 18.7
	W	24	3:32 2.1	8:18 18.9	15:54 2.1	20:38 19.7
	Th	25	4:16 1.1	9:00 19.8	16:35 1.4	21:18 20.5
○	F	26	4:54 0.7	9:36 20.6	17:09 1.2	21:50 21.0
A	S	27	5:24 0.7	10:07 20.7	17:38 1.6	22:20 21.4
E	S	28	5:52 1.1	10:36 21.4	18:06 2.1	22:50 21.7
	M	29	6:21 1.7	11:05 21.6	18:36 2.4	23:16 21.8
	Tu	30	6:50 1.9	11:35 21.9	19:06 2.7	23:47 22.0
	W	31	7:22 2.3	12:07 21.7	19:40 3.0	. . . . . .

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	0:22 21.2	7:57 3.1	12:42 21.1	20:17 3.5
	F	2	1:02 20.4	8:38 3.4	13:26 20.4	21:00 3.9
☾	S	3	1:48 19.9	9:25 4.1	14:17 19.6	21:58 4.6
N	S	4	2:45 18.8	10:28 5.0	15:21 18.6	23:07 5.1
	M	5	3:59 18.1	11:42 5.3	16:38 18.1	. . . . . .
	Tu	6	0:25 4.7	5:20 18.2	13:05 4.7	17:58 18.9
	W	7	1:45 3.4	6:36 19.4	14:18 3.1	19:07 20.4
	Th	8	2:50 1.6	7:38 21.2	15:20 1.2	20:05 22.2
P ●	F	9	3:45 —0.4	8:32 22.6	16:10 —0.5	20:57 23.6
E	S	10	4:35 —1.8	9:22 23.8	17:00 —1.3	21:45 24.4
	S	11	5:22 2.4	10:10 24.1	17:44 —1.8	22:28 24.6
	M	12	6:04 —2.1	10:50 24.2	18:26 —1.2	23:10 24.0
	Tu	13	6:47 —1.3	11:35 23.4	19:10 —0.3	23:55 23.0
	W	14	7:31 0.1	12:18 22.2	19:55 1.1	. . . . . .
	Th	15	0:40 21.6	8:19 1.7	13:06 20.6	20:41 2.6
☽	F	16	1:29 19.7	9:06 3.4	13:52 19.0	21:32 4.0
S	S	17	2:22 17.8	10:00 5.1	14:52 17.1	22:39 5.2
	S	18	3:29 15.8	11:11 6.0	16:05 15.8	23:55 5.6
	M	19	4:48 15.4	12:32 6.7	17:25 15.8	. . . . . .
	Tu	20	1:14 4.9	6:05 16.1	13:46 4.9	18:36 16.8
	W	21	2:19 3.9	7:07 17.2	14:45 3.8	19:30 18.1
	Th	22	3:10 2.8	7:54 18.6	15:32 2.6	20:12 19.1
A	F	23	3:48 1.5	8:35 19.7	16:10 1.6	20:52 20.3
☾ E	S	24	4:25 0.9	9:08 20.6	16:40 1.3	21:18 21.2
	S	25	4:55 0.8	9:37 21.5	17:10 1.2	21:50 21.9
	M	26	5:22 0.9	10:05 21.9	17:37 1.4	22:20 22.2
	Tu	27	5:50 1.2	10:35 22.5	18:06 1.7	22:49 22.5
	W	28	6:20 1.5	11:05 22.6	18:36 1.9	23:19 23.6
	Th	29	6:52 2.1	11:35 22.2	19:10 2.6	23:54 21.6
	F	30	7:27 2.7	12:14 21.2	19:49 3.0	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the French Charts for this region, and which is 11.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			OCTOBER.			
	S	1	0:33	8:08	12:56	20:32
			20.8	3.4	20.5	3.7
N	S	2	1:20	8:57	13:47	21:28
☾			20.0	4.3	19.7	4.4
	M	3	2:19	10:00	14:52	22:37
			18.9	5.1	18.4	5.1
	Tu	4	3:32	11:17	16:12	. . .
			17.9	5.7	17.9	. . .
	W	5	0:02	4:56	12:42	17:35
			4.8	17.8	5.1	18.5
	Th	6	1:22	6:15	13:57	18:45
			3.6	19.1	3.3	20.0
	F	7	2:28	7:18	14:59	19:44
			1.7	21.1	1.2	22.1
P	S	8	3:24	8:11	15:50	20:36
E			—0.4	22.9	—0.7	23.7
●	S	9	4:15	9:00	16:37	21:25
			—1.2	24.2	—1.7	24.6
	M	10	5:00	9:46	17:22	22:08
			—1.7	24.4	—1.9	24.6
	Tu	11	5:42	10:29	18:05	22:50
			—2.0	24.3	—1.6	24.2
	W	12	6:26	11:11	18:47	23:33
			—1.1	23.6	—0.6	22.9
	Th	13	7:09	11:55	19:32	. . .
			0.3	22.2	0.8	. . .
S	F	14	0:18	7:54	12:40	20:17
			21.4	2.0	20.7	2.4
	S	15	1:04	8:40	13:27	21:05
			19.4	3.7	19.0	4.0
☽	S	16	1:54	9:32	14:21	22:07
			17.7	5.0	17.3	5.2
	M	17	2:57	10:40	15:30	23:17
			16.2	6.3	15.7	5.8
	Tu	18	4:12	11:55	16:46	. . .
			15.1	6.3	15.2	. . .
	W	19	0:35	5:27	13:10	17:57
			5.5	15.4	5.5	15.9
A	Th	20	1:40	6:28	14:09	18:54
			4.7	16.4	4.4	17.3
	F	21	2:31	7:17	14:58	19:33
			3.5	17.9	3.2	18.4
E	S	22	3:18	8:02	15:40	20:20
			2.6	19.3	2.4	19.8
	S	23	3:54	8:36	16:12	20:54
			1.6	20.4	1.7	20.8
○	M	24	4:26	9:09	16:44	21:25
			1.4	21.4	1.5	21.8
	Tu	25	4:57	9:40	17:14	21:56
			1.4	22.4	1.4	22.3
	W	26	5:28	10:11	17:46	22:28
			1.5	22.8	1.6	22.7
	Th	27	6:00	10:45	18:18	23:00
			1.7	22.8	1.8	22.7
	F	28	6:34	11:17	18:52	23:37
			2.1	22.4	2.2	21.8
N	S	29	7:10	11:57	19:32	. . .
			2.9	21.4	2.7	. . .
	S	30	0:17	7:52	12:38	20:18
			21.3	3.6	20.6	3.6
☾	M	31	1:05	8:42	13:30	21:12
			20.2	4.4	19.9	4.2

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			NOVEMBER.			
	Tu	1	2:05	9:45	14:35	22:20
			19.0	5.3	18.6	4.7
	W	2	3:15	11:00	15:51	23:40
			18.1	5.6	17.9	4.6
	Th	3	4:36	12:23	17:12	. . .
			17.9	5.0	18.2	. . .
E	F	4	1:00	5:54	13:37	18:25
			3.8	19.7	3.0	19.6
P	S	5	2:07	6:57	14:33	19:25
			1.9	20.6	1.5	21.5
	S	6	3:03	7:50	15:30	20:17
			0.2	22.3	—0.1	22.9
●	M	7	3:56	8:40	16:20	21:05
			—1.0	23.4	—1.4	23.7
	Tu	8	4:43	9:29	17:06	21:51
			—1.4	24.1	—1.6	24.0
	W	9	5:26	10:11	17:50	22:35
			—1.3	24.0	—1.5	23.4
	Th	10	6:10	10:55	18:32	23:18
			—0.7	23.3	—0.6	22.6
S	F	11	6:51	11:37	19:15	. . .
			0.5	22.2	0.4	. . .
	S	12	0:00	7:35	12:20	19:58
			21.4	1.9	20.9	2.0
	S	13	0:45	8:21	13:06	20:43
			19.9	3.5	19.4	3.6
	M	14	1:30	9:07	13:55	21:34
			18.2	4.9	17.8	4.7
☽	Tu	15	2:25	10:03	14:50	22:35
			16.9	6.0	16.4	5.6
	W	16	3:28	11:10	16:00	23:42
			15.9	6.5	15.5	5.8
A	Th	17	4:35	12:18	17:05	. . .
			15.5	6.1	15.6	. . .
E	F	18	0:46	5:35	13:20	18:05
			5.4	16.1	5.3	16.5
	S	19	1:41	6:30	14:10	18:57
			4.5	17.4	4.2	17.9
	S	20	2:34	7:17	14:59	19:40
			3.7	18.8	3.3	19.1
	M	21	3:16	8:00	15:39	20:20
			2.7	20.3	2.3	20.5
	Tu	22	3:52	8:38	16:15	20:57
			2.0	21.3	1.7	21.4
○	W	23	4:30	9:14	16:50	21:32
			1.5	22.2	1.3	22.2
	Th	24	5:05	9:50	17:25	22:10
			1.6	22.6	1.2	22.7
N	F	25	5:42	10:27	18:02	22:48
			1.6	22.9	1.3	22.6
	S	26	6:20	11:05	18:41	23:27
			2.0	22.9	1.6	22.4
	S	27	7:00	11:46	19:22	. . .
			2.6	22.2	2.1	. . .
	M	28	0:08	7:42	12:30	20:07
			21.6	3.1	21.3	2.8
	Tu	29	0:55	8:31	13:19	21:00
			20.5	4.2	20.0	3.6
☾	W	30	1:52	9:32	14:18	22:00
			19.4	4.6	18.9	4.0

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			DECEMBER.			
	Th	1	2:57	10:40	15:30	23:14
			18.7	5.2	18.2	4.3
E	F	2	4:10	11:50	16:45	. . .
			18.2	5.0	18.1	. . .
P	S	3	0:28	5:24	13:07	17:57
			3.8	18.5	3.7	18.8
	S	4	1:38	6:30	14:13	19:00
			2.8	19.5	2.2	20.1
	M	5	2:40	7:28	15:00	19:55
			1.4	21.1	0.7	21.3
	Tu	6	3:34	8:20	16:00	20:47
			0.2	22.2	—0.5	22.3
●	W	7	4:24	9:10	16:48	21:35
			—0.4	22.9	—1.0	22.8
S	Th	8	5:11	9:56	17:34	22:20
			—0.6	23.0	—1.1	22.6
	F	9	5:52	10:37	18:15	23:00
			0.3	22.7	—0.6	22.0
	S	10	6:34	11:19	18:56	23:42
			0.6	21.8	0.4	21.2
	S	11	7:15	11:59	19:37	. . .
			1.9	21.1	1.5	. . .
	M	12	0:22	7:56	12:40	20:18
			20.2	3.0	20.0	2.9
	Tu	13	1:05	8:40	13:26	21:02
			19.2	4.2	18.8	4.2
☽	W	14	1:50	9:25	14:12	21:50
			18.2	5.2	17.6	5.0
A	Th	15	2:36	10:15	15:00	22:39
E			17.4	5.9	16.9	5.3
	F	16	3:29	11:10	15:56	23:35
			16.9	6.2	16.4	5.8
	S	17	4:28	12:12	16:59	. . .
			16.6	6.1	16.5	. . .
	S	18	0:37	5:29	13:12	17:58
			5.5	17.2	5.5	17.2
	M	19	1:37	6:25	14:07	18:53
			4.8	18.3	4.3	18.3
	Tu	20	2:32	7:18	15:00	19:45
			3.7	19.5	3.1	19.6
	W	21	3:21	8:08	15:46	20:32
			2.9	20.7	2.0	20.9
○	Th	22	4:06	8:52	16:30	21:15
			2.1	22.0	1.4	21.9
N	F	23	4:47	9:34	17:10	21:55
			1.6	22.7	0.7	22.5
	S	24	5:30	10:14	17:50	22:37
			1.4	23.0	0.5	22.7
	S	25	6:10	10:55	18:31	23:20
			1.4	22.9	0.6	22.7
	M	26	6:52	11:37	19:15	. . .
			1.8	22.7	1.1	. . .
P	Tu	27	0:00	7:38	12:22	20:00
			22.3	2.3	22.0	1.7
	W	28	0:48	8:21	13:10	20:47
			21.5	3.0	20.9	2.6
E	Th	29	1:40	9:15	14:00	21:41
☾			20.2	3.8	19.9	3.2
	F	30	2:37	10:15	15:02	22:47
			19.3	4.5	18.7	4.0
	S	31	3:40	11:25	16:13	23:57
			18.3	4.8	17.8	4.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the French Charts for this region, and which is 11.3 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Paris Mean Civil, for the meridian 2° 20′ E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	0:20 14.6	6:32 1.7	12:46 14.9	18:58 1.2
N	S	2	1:12 15.4	7:24 0.8	13:37 15.8	19:48 0.4
○	S	3	2:00 16.1	8:14 0.1	14:25 16.4	20:36 —0.2
P	M	4	2:48 16.7	9:00 —0.3	15:12 16.8	21:23 —0.5
	Tu	5	3:35 16.9	9:47 —0.5	15:58 16.9	22:10 —0.6
	W	6	4:22 16.9	10:35 —0.5	16:45 16.8	23:00 —0.3
	Th	7	5:10 16.6	11:22 0.0	17:35 16.3	23:47 0.3
E	F	8	6:00 15.9	12:12 0.7	18:25 15.5	. . . . . .
☾	S	9	0:40 1.1	6:52 15.0	13:07 1.6	19:40 14.6
	S	10	1:38 2.0	7:51 14.2	14:08 2.4	20:21 13.6
	M	11	2:41 2.7	8:55 13.5	15:15 3.0	21:28 13.2
	Tu	12	3:48 3.2	10:02 13.1	16:23 3.3	22:37 13.1
	W	13	4:56 3.2	11:10 13.1	17:27 3.2	23:41 13.2
	Th	14	5:58 3.1	12:12 13.3	18:25 3.0	. . . . . .
S	F	15	0:39 13.5	6:51 2.7	13:05 13.7	19:16 2.5
	S	16	1:29 14.0	7:37 2.3	13:50 14.2	20:00 2.1
●	S	17	2:10 14.4	8:20 1.9	14:27 14.5	20:39 1.8
	M	18	2:45 14.5	8:57 1.7	15:00 14.6	21:12 1.7
A	Tu	19	3:17 14.7	9:29 1.6	15:33 14.7	21:45 1.6
	W	20	3:50 14.8	10:02 1.6	16:07 14.8	22:19 1.5
	Th	21	4:25 14.9	10:35 1.6	16:40 14.8	22:52 1.6
	F	22	4:57 14.8	11:10 1.8	17:16 14.6	23:28 1.9
E	S	23	5:36 14.5	11:48 2.0	17:57 14.3	. . . . . .
	S	24	0:08 2.2	6:19 14.1	12:30 2.4	18:41 13.9
☽	M	25	0:53 2.6	7:06 13.8	13:17 2.8	19:30 13.5
	Tu	26	1:45 3.0	7:58 13.3	14:15 3.2	20:27 13.1
	W	27	2:47 3.4	9:02 12.9	15:19 3.5	21:34 12.9
	Th	28	3:54 3.5	10:10 13.0	16:29 3.3	22:43 13.2
N	F	29	5:02 3.0	11:17 13.6	17:36 2.6	23:49 14.0
	S	30	6:06 2.1	12:20 14.5	18:34 1.6	. . . . . .
	S	31	0:48 15.0	7:02 1.1	13:16 15.5	19:29 0.6

FEBRUARY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○	M	1	1:42 16.0	7:55 0.1	14:07 16.5	20:19 —0.3
P	Tu	2	2:32 16.9	8:44 —0.6	14:56 17.1	21:10 —0.8
	W	3	3:18 17.3	9:30 —1.0	15:40 17.4	21:54 —1.0
E	Th	4	4:04 17.4	10:16 —1.1	16:27 17.4	22:40 —1.0
	F	5	4:51 17.3	11:02 —0.8	17:14 17.0	23:26 —0.4
	S	6	5:37 16.5	11:50 0.1	18:02 16.0	. . . . . .
	S	7	0:14 0.6	6:27 15.5	12:39 1.1	18:52 15.0
☾	M	8	1:07 1.7	7:20 14.4	13:35 2.2	19:47 13.9
	Tu	9	2:07 2.7	8:18 13.4	14:39 3.2	20:52 13.0
	W	10	3:14 3.5	9:28 12.7	15:50 3.7	22:04 12.5
S	Th	11	4:26 3.9	10:40 12.5	17:00 3.8	23:14 12.5
	F	12	5:34 3.7	11:48 12.6	18:04 3.6	. . . . . .
	S	13	0:17 12.8	6:31 3.4	12:44 13.0	18:56 3.1
	S	14	1:09 13.3	7:20 2.9	13:30 13.7	19:41 2.5
	M	15	1:50 14.0	8:00 2.2	14:08 14.2	20:19 2.0
A ●	Tu	16	2:24 14.4	8:35 1.8	14:40 14.5	20:51 1.7
	W	17	2:54 14.7	9:06 1.6	15:10 14.8	21:20 1.5
	Th	18	3:24 15.0	9:35 1.4	15:39 15.1	21:50 1.3
E	F	19	3:55 15.2	10:07 1.1	16:12 15.4	22:22 1.1
	S	20	4:28 15.4	10:40 1.1	16:47 15.3	22:57 1.2
	S	21	5:04 15.2	11:15 1.4	17:25 15.0	23:35 1.6
	M	22	5:45 14.7	11:55 1.8	18:06 14.5	. . . . . .
	Tu	23	0:17 2.0	6:29 14.3	12:42 2.3	18:53 14.0
☽	W	24	1:07 2.7	7:20 13.7	13:37 3.0	19:50 13.3
	Th	25	2:10 3.2	8:22 13.0	14:44 3.5	21:00 12.8
N	F	26	3:20 3.7	9:36 12.8	15:57 3.6	22:14 12.9
	S	27	4:36 3.4	10:51 13.2	17:11 3.0	23:26 13.7
	S	28	5:45 2.5	11:58 14.2	18:15 1.9	. . . . . .
	M	29	0:28 14.8	6:44 1.3	12:57 15.3	19:10 0.7

MARCH.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P	Tu	1	1:24 16.0	7:36 0.2	13:49 16.5	20:00 —0.3
○	W	2	2:14 17.0	8:25 —0.8	14:37 17.3	20:49 —1.1
E	Th	3	2:59 17.5	9:10 —1.3	15:20 17.7	21:33 —1.3
	F	4	3:42 17.7	9:55 —1.4	16:05 17.8	22:17 —1.4
	S	5	4:27 17.6	10:40 —1.0	16:50 17.3	23:00 —0.7
	S	6	5:12 16.8	11:24 —0.2	17:35 16.3	23:48 0.4
	M	7	6:00 15.7	12:11 1.0	18:22 15.1	. . . . . .
	Tu	8	0:36 1.6	6:42 14.5	13:04 2.2	19:16 13.9
☾	W	9	1:32 2.8	7:45 13.3	14:05 3.3	20:17 12.8
S	Th	10	2:37 3.8	8:50 12.4	15:15 4.1	21:29 12.2
	F	11	3:52 4.3	10:06 12.0	16:30 4.3	22:44 12.0
	S	12	5:04 4.2	11:17 12.1	17:37 4.1	23:50 12.3
	S	13	6:07 3.9	12:18 12.6	18:32 3.5	. . . . . .
A	M	14	0:43 13.0	6:55 3.2	13:05 13.4	19:15 2.8
	Tu	15	1:25 13.7	7:37 2.4	13:42 14.0	19:52 2.1
	W	16	1:57 14.4	8:10 1.8	14:12 14.6	20:22 1.6
● E	Th	17	2:28 14.9	8:39 1.4	14:41 15.0	20:52 1.2
	F	18	2:57 15.2	9:07 1.1	15:12 15.4	21:22 1.0
	S	19	3:27 15.5	9:40 0.8	15:45 15.7	21:55 0.6
	S	20	4:02 15.8	10:13 0.7	16:19 15.7	22:30 0.8
	M	21	4:37 15.6	10:49 1.0	16:57 15.4	23:08 1.2
	Tu	22	5:18 15.1	11:30 1.4	17:40 14.9	23:50 1.7
	W	23	6.02 14.5	12:14 2.1	18:26 14.2	. . . . . .
N ☽	Th	24	0:40 2.4	6:54 13.8	13:11 2.8	19:24 13.5
	F	25	1:44 3.2	7:57 13.1	14:18 3.5	20:34 12.8
	S	26	2:57 3.7	9:12 12.7	15:34 3.7	21:50 12.7
	S	27	4:14 3.4	10:30 13.0	16:50 3.1	23:05 13.5
	M	28	5:25 2.7	11:37 14.0	17:55 2.1	. . . . . .
P	Tu	29	0:07 14.5	6:24 1.5	12:37 15.2	18:51 0.0
E	W	30	1:04 15.8	7:16 0.3	13:29 16.4	19:40 —0.2
○	Th	31	1:54 16.8	8:06 —0.6	14:16 17.1	20:20 —1.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:37 17.5	8:49 —1.1	14:59 17.5	21:12 —1.2
	S	2	3:20 17.6	9:34 —1.2	15:42 17.6	21:55 —1.2
	S	3	4:03 17.4	10:17 —0.9	16:25 17.1	22:37 —0.5
	M	4	4:46 16.7	11:00 0.0	17:09 16.2	23:22 0.5
	Tu	5	5:31 15.6	11:44 1.1	17:56 15.0	. . . . . .
S	W	6	0:07 1.7	6:20 14.4	12:33 2.3	18:46 13.8
☾	Th	7	1:00 2.9	7:10 13.3	13:29 3.4	19:40 12.8
	F	8	2:02 3.8	8:15 12.4	14:36 4.2	20:50 12.0
	S	9	3:11 4.4	9:26 11.9	15:48 4.4	22:04 11.8
A	S	10	4:25 4.5	11:27 11.9	16:51 4.4	23:11 12.0
	M	11	5:26 4.1	11:40 12.3	17:52 3.8	. . . . . .
	Tu	12	0:04 12.7	6:16 3.4	12:28 13.1	18:37 3.0
E	W	13	0:50 13.5	7:00 2.6	13:08 13.9	19:18 2.2
	Th	14	1:25 1.43	7:35 1.9	13:42 14.6	19:53 1.6
●	F	15	2:00 14.9	8:10 1.3	14:14 15.1	20:24 1.1
	S	16	2:29 15.3	8:40 0.9	14:46 15.6	20:56 0.8
	S	17	3:02 15.8	9:14 0.6	15:20 15.9	21:32 0.5
	M	18	3:40 16.0	9:50 0.4	15:58 16.0	22:09 0.5
	Tu	19	4:17 15.9	10:28 0.6	16:37 15.7	22:50 0.9
N	W	20	4:58 15.4	11:09 1.2	17:22 15.1	23:31 1.5
	Th	21	5:44 14.8	11:57 1.7	18:09 14.5	. . . . . .
	F	22	0:25 2.3	6:36 14.1	12:55 2.6	19:07 13.7
☽	S	23	1:26 3.0	7:41 13.3	14:02 3.3	20:17 13.0
	S	24	2:38 3.5	8:53 12.9	15:16 3.6	21:30 12.8
	M	25	3:54 3.5	10:08 13.0	16:30 3.2	22:44 13.4
P	Tu	26	5:04 2.7	11:16 13.8	17:35 2.2	23:48 14.3
E	W	27	6:03 1.7	12:16 14.9	18:30 1.2	. . . . . .
	Th	28	0:43 15.4	6:55 0.8	13:08 15.8	19:20 0.4
○	F	29	1:32 16.2	7:45 0.0	13:55 16.5	20:07 —0.3
	S	30	2:18 16.8	8:20 —0.5	14:38 16.9	20:52 —0.5

MAY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	2:58 17.0	9:10 —0.6	15:20 16.9	21:32 —0.6
	M	2	3:40 16.9	9:54 —0.4	16:00 16.6	22:12 —0.1
S	Tu	3	4:23 16.3	10:35 0.3	16:44 15.9	22:56 0.7
	W	4	5:06 15.4	11:20 1.2	17:30 14.9	23:40 1.7
	Th	5	5:52 14.4	12:04 2.2	18:16 13.9	. . . . . .
	F	6	0:28 2.7	6:40 13.4	12:55 3.2	19:04 13.0
☾	S	7	1:22 3.6	7:34 12.6	13:52 4.0	20:05 12.3
A	S	8	2:26 4.2	8:40 12.1	15:00 4.4	21:10 12.0
	M	9	3:30 4.4	9:45 11.9	16:03 4.4	22:17 12.0
	Tu	10	4:34 4.3	10:47 12.2	17:02 4.0	23:15 12.5
E	W	11	5:29 3.7	11:41 12.8	17:52 3.3	. . . . . .
	Th	12	0:05 13.3	6:17 2.9	12:27 13.7	18:38 2.5
	F	13	0:47 14.0	6:59 2.1	13:06 14.4	19:17 1.7
	S	14	1:25 14.7	7:36 1.4	13:44 15.1	19:55 1.1
●	S	15	2:02 15.4	8:14 0.9	14:20 15.6	20:32 0.7
	M	16	2:42 15.8	8:53 0.5	15:00 16.0	21:11 0.4
	Tu	17	3:19 16.1	9:31 0.3	15:40 16.2	21:52 0.2
N	W	18	4:02 16.1	10:12 0.4	16:23 16.0	22:35 0.6
	Th	19	4:45 15.7	10:57 0.8	17:08 15.4	23:22 1.1
	F	20	5:32 15.1	11:46 1.5	17:57 14.8	. . . . . .
	S	21	0:14 1.8	6:25 14.5	12:40 2.2	18:54 14.1
☽ P	S	22	1:10 2.5	7:26 13.8	13:48 2.8	20:00 13.5
	M	23	2:21 3.0	8:33 13.3	14:55 3.1	21:08 13.2
E	Tu	24	3:31 3.1	9:45 13.2	16:05 3.1	22:19 13.3
	W	25	4:39 2.9	10:53 13.6	17:10 2.6	23:24 13.9
	Th	26	5:40 2.2	11:53 14.3	18:07 1.9	. . . . . .
	F	27	0:20 14.7	6:35 1.5	12:46 15.0	19:00 1.2
	S	28	1:12 15.3	7:23 0.9	13:36 15.6	19:48 0.7
○	S	29	1:58 15.8	8:11 0.5	14:20 16.0	20:32 0.4
	M	30	2:41 16.0	8:52 0.4	15:00 16.0	21:12 0.3
S	Tu	31	3:20 16.0	9:32 0.3	15:40 16.0	21:55 0.5

JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	4:00 15.8	10:14 0.7	16:22 15.5	22:35 1.0
	Th	2	4:44 15.2	10:54 1.4	17:03 14.8	23:15 1.7
	F	3	5:24 14.5	11:36 2.1	17:47 14.1	23:59 2.5
	S	4	6:11 13.7	12:21 2.8	18:35 13.4	. . . . . .
A	S	5	0:46 3.1	6:59 13.1	13:10 3.5	19:23 12.8
☾	M	6	1:37 3.7	7:50 12.6	14:06 3.9	20:19 12.4
E	Tu	7	2:34 4.0	8:48 12.3	15:04 4.1	21:16 12.2
	W	8	3:34 4.1	9:47 12.2	16:04 4.1	22:15 12.4
	Th	9	4:32 3.9	10:45 12.6	17:00 3.6	23:13 12.9
	F	10	5:27 3.3	11:40 13.3	17:52 2.9	. . . . . .
	S	11	0:06 13.7	6:18 2.5	12:30 14.1	18:41 2.0
	S	12	0:54 14.5	7:05 1.6	13:16 14.9	19:28 1.3
●	M	13	1:39 15.2	7:50 1.0	14:00 15.6	20:12 0.7
N	Tu	14	2:22 15.8	8:32 0.4	14:43 16.0	20:54 0.4
	W	15	3:04 16.2	9:15 0.1	15:25 16.3	21:37 0.1
	Th	16	3:48 16.4	10:00 0.0	16:12 16.4	22:24 0.1
P	F	17	4:34 16.3	10:47 0.3	16:59 16.0	23:10 0.6
	S	18	5:21 15.8	11:35 0.8	17:46 15.5	. . . . . .
	S	19	0:00 1.1	6:12 15.1	12:26 1.4	18:40 14.8
☽ E	M	20	0:57 1.8	7:08 14.5	13:27 2.1	19:38 14.1
	Tu	21	1:58 2.4	8:10 13.8	14:30 2.7	20:44 13.6
	W	22	3:04 2.8	9:18 13.5	15:37 2.9	21:52 13.4
	Th	23	4:11 2.9	10:25 13.4	16:45 2.9	22:59 13.5
	F	24	5:16 2.8	11:30 13.6	17:46 2.7	. . . . . .
	S	25	0:00 13.8	6:15 2.4	12:27 14.0	18:42 2.1
	S	26	0:54 14.3	7:07 1.9	13:20 14.6	19:32 1.6
S ○	M	27	1:44 14.9	7:55 1.4	14:05 15.0	20:16 1.2
	Tu	28	2:25 15.1	8:37 1.2	14:45 15.2	20:57 1.1
	W	29	3:04 15.3	9:17 1.1	15:22 15.3	21:36 1.1
	Th	30	3:42 15.3	9:54 1.1	16:00 15.2	22:12 1.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon, ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	4:18 15.1	10:32 1.4	16:38 15.0	22:50 1.6
	S	2	4:57 14.7	11:09 1.8	17:17 14.5	23:29 2.0
A	S	3	5:37 14.3	11:48 2.3	17:57 14.0	. . . . . .
	M	4	0:08 2.5	6:19 13.8	12:30 2.8	18:41 13.5
E ☾	Tu	5	0:53 3.0	7:05 13.3	13:17 3.2	19:29 13.1
	W	6	1:40 3.4	7:54 12.9	14:07 3.6	20:20 12.8
	Th	7	2:35 3.7	8:49 12.7	15:04 3.8	21:19 12.6
	F	8	3:35 3.8	9:50 12.6	16:07 3.8	22:22 12.7
	S	9	4:38 3.6	10:52 13.0	17:09 3.3	23:24 13.3
	S	10	5:39 2.9	11:53 13.7	18:07 2.4	. . . . . .
	M	11	0:21 14.2	6:35 2.0	12:48 14.7	19:00 1.5
N	Tu	12	1:14 15.1	7:25 1.1	13:39 15.5	19:50 0.6
●	W	13	2:02 15.9	8:16 0.8	14:27 16.3	20:38 0.0
	Th	14	2:49 16.5	9:02 —0.2	15:10 16.7	21:24 —0.4
P	F	15	3:34 16.8	9:46 —0.5	15:57 16.9	22:10 —0.5
	S	16	4:20 16.9	10:34 —0.5	16:44 16.8	22:56 —0.4
	S	17	5:07 16.6	11:20 —0.1	17:34 16.3	23:37 0.3
E	M	18	5:57 16.0	12:09 0.7	18:21 15.5	. . . . . .
☽	Tu	19	0:36 1.1	6:47 15.1	13:02 1.5	19:15 14.7
	W	20	1:32 2.0	7:43 14.2	14:02 2.3	20:14 13.8
	Th	21	2:34 2.7	8:48 13.5	15:09 3.0	21:22 13.2
	F	22	3:42 3.2	9:58 13.0	16:18 3.3	22:33 13.0
	S	23	4:54 3.3	11:06 13.0	17:26 3.2	23:40 13.1
S	S	24	5:59 3.1	12:11 13.3	18:25 3.0	. . . . . .
	M	25	0:40 13.5	6:52 2.7	13:06 13.8	19:18 2.4
	Tu	26	1:30 14.0	7:42 2.1	13:52 14.4	20:04 1.9
○	W	27	2:12 14.5	8:24 1.7	14:34 14.7	20:42 1.5
	Th	28	2:49 14.8	9:00 1.5	15:05 14.9	21:16 1.4
	F	29	3:22 14.9	9:33 1.4	15:37 15.0	21:50 1.4
A	S	30	3:55 15.0	10:06 1.4	16:10 15.0	22:23 1.3
	S	31	4:29 15.1	10:40 1.4	16:46 15.0	22:57 1.5

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	5:02 14.9	11:13 1.7	17:21 14.7	23:31 1.9
	Tu	2	5:39 14.5	11:51 2.1	18:00 14.2	. . . . . .
	W	3	0:11 2.3	6:20 14.0	12:33 2.5	18:44 13.8
☾	Th	4	0:55 2.7	7:07 13.6	13:20 3.0	19:32 13.3
	F	5	1:47 3.2	8:00 13.1	14:17 3.4	20:30 12.9
	S	6	2:49 3.6	9:08 12.7	15:22 3.8	21:36 12.6
	S	7	3:56 3.7	10:12 12.7	16:32 3.5	22:47 13.0
N	M	8	5:07 3.2	11:20 13.4	17:38 2.7	23:42 13.9
	Tu	9	6:09 2.3	12:23 14.4	18:37 1.7	. . . . . .
	W	10	0:51 14.9	7:05 1.2	13:19 15.5	19:30 0.6
●	Th	11	1:44 16.0	7:57 0.1	14:11 16.5	20:22 —0.4
P	F	12	2:33 16.8	8:46 —0.7	14:55 17.1	21:08 —0.9
	S	13	3:17 17.4	9:30 —1.0	15:40 17.5	21:52 —1.1
E	S	14	4:02 17.5	10:16 —1.2	16:25 17.5	22:38 —1.1
	M	15	4:48 17.4	11:00 —0.8	17:11 17.0	23:24 —0.4
	Tu	16	5:35 16.6	11:47 0.0	18:00 16.1	. . . . . .
	W	17	0:11 0.6	6:24 15.5	12:37 1.1	18:48 15.0
☽	Th	18	1:05 1.7	7:16 14.4	13:34 2.3	19:46 13.9
	F	19	2:05 2.8	8:19 13.4	14:38 3.2	20:53 12.9
	S	20	3:16 3.5	9:30 12.7	15:52 3.7	22:07 12.5
S	S	21	4:30 3.8	10:45 12.5	17:05 3.7	23:19 12.6
	M	22	5:38 3.7	11:52 12.7	18:10 3.5	. . . . . .
	Tu	23	0:23 12.9	6:36 3.2	12:50 13.3	19:03 2.9
	W	24	1:13 13.6	7:24 2.6	13:35 13.9	19:45 2.2
	Th	25	1:55 14.2	8:07 2.0	14:11 14.5	20:24 1.8
○	F	26	2:30 14.6	8:38 1.6	14:45 14.8	20:46 1.5
A	S	27	2:58 14.9	9:11 1.4	15:12 15.0	21:25 1.3
E	S	28	3:29 15.1	9:38 1.3	15:42 15.2	21:55 1.2
	M	29	4:00 15.3	10:11 1.0	16:15 15.4	22:27 1.1
	Tu	30	4:30 15.3	10:43 1.2	16:50 15.2	22:58 1.3
	W	31	5:05 15.0	11:17 1.5	17:25 14.8	23:38 1.7

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	5:46 14.5	11:56 2.0	18:08 14.3	. . . . . .
	F	2	0:17 2.3	6:30 14.0	12:41 2.5	18:58 13.7
☾	S	3	1:07 2.8	7:22 13.5	13:40 3.2	19:50 13.1
N	S	4	2:11 3.5	8:25 12.8	14:47 3.7	21:02 12.7
	M	5	3:24 3.8	9:38 12.6	16:02 3.7	22:17 12.8
	Tu	6	4:40 3.4	10:54 13.2	17:14 3.0	23:28 13.7
	W	7	5:47 2.4	12:00 14.3	18:16 1.9	. . . . . .
	Th	8	0:30 14.9	6:45 1.2	12:57 15.5	19:10 0.6
P ●	F	9	1:24 16.0	7:35 0.0	13:50 16.6	20:00 —0.5
E	S	10	2:12 17.0	8:25 —0.9	14:35 17.4	20:47 —1.2
	S	11	2:57 17.7	9:10 —1.3	15:19 17.8	21:31 —1.4
	M	12	3:40 17.8	9:53 —1.5	16:03 17.9	22:16 —1.4
	Tu	13	4:27 17.7	10:38 —1.1	16:47 17.3	23:00 —0.7
	W	14	5:11 16.8	11:24 —0.2	17:35 16.4	23:47 0.4
	Th	15	6:00 15.7	12:12 1.0	18:25 15.1	. . . . . .
☽	F	16	0:37 1.6	6:50 14.5	13:06 2.2	19:17 13.9
S	S	17	1:37 2.8	7:48 13.3	14:09 3.3	20:21 12.8
	S	18	2:45 3.7	8:59 12.4	15:21 4.0	21:38 12.2
	M	19	4:02 4.1	10:18 12.2	16:38 4.1	22:51 12.2
	Tu	20	5:14 4.0	11:25 12.4	17:45 3.8	23:58 12.6
	W	21	6:13 3.5	12:25 12.9	18:37 3.2	. . . . . .
	Th	22	0:49 13.3	7:00 2.9	13:10 13.7	19:20 2.5
A	F	23	1:31 14.0	7:40 2.1	13:47 14.3	19:57 1.9
○ E	S	24	2:02 14.5	8:12 1.7	14:17 14.7	20:25 1.5
	S	25	2:32 14.9	8:40 1.4	14:46 15.0	20:55 1.3
	M	26	3:00 15.2	9:10 1.2	15:14 15.3	21:25 1.0
	Tu	27	3:29 15.5	9:42 0.9	15:47 15.6	21:59 0.8
	W	28	4:03 15.6	10:13 0.9	16:21 15.5	22:30 1.0
	Th	29	4:38 15.3	10:50 1.2	16:57 15.2	23:07 1.4
	F	30	5:18 14.9	11:30 1.7	17:40 14.6	23:50 2.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.2 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:22 18.4	10:48 1.6	16:49 18.9	23:13 1.1	
N	S	2	5:15 19.5	11:37 0.5	17:40 20.0	. . .	
○	S	3	0:02 0.0	6:04 20.5	12:25 1.6	18:28 20.9	
P	M	4	0:49 —0.8	6:51 21.3	13:11 —1.0	19:15 21.5	
	Tu	5	1:35 —1.1	7:39 21.6	13:58 —1.1	20:02 21.6	
	W	6	2:22 —1.1	8:26 21.5	14:45 —0.8	20:50 21.3	
	Th	7	3:10 —0.7	9:15 21.0	15:35 —0.3	21:40 20.6	
E	F	8	4:00 0.1	10:05 20.1	16:27 0.6	22:32 19.6	
☾	S	9	4:55 1.1	11:00 19.1	17:22 1.6	23:29 18.5	
	S	10	5:53 2.1	11:58 18.0	18:25 2.6	. . .	
	M	11	0:30 17.5	6:59 3.0	13:02 17.0	19:31 3.3	
	Tu	12	1:36 16.7	8:06 3.5	14:10 16.5	20:42 3.5	
	W	13	2:43 16.4	9:13 3.4	15:17 16.4	21:45 3.3	
	Th	14	3:47 16.6	10:15 3.0	16:15 16.8	22:41 2.8	
S	F	15	4:41 17.0	11:07 2.5	17:06 17.3	23:31 2.3	
	S	16	5:28 17.5	11:53 2.1	17:50 17.8	. . .	
●	S	17	0:13 1.9	6:10 18.0	12:32 1.8	18:28 18.2	
	M	18	0:50 1.7	6:45 18.3	13:07 1.6	19:02 18.5	
A	Tu	19	1:24 1.6	7:18 18.6	13:40 1.6	19:37 18.7	
	W	20	1:56 1.7	7:53 18.7	14:12 1.7	20:10 18.7	
	Th	21	2:30 1.8	8:27 18.7	14:47 1.9	20:45 18.7	
	F	22	3:03 2.0	9:03 18.6	15:20 2.2	21:22 18.4	
E	S	23	3:39 2.4	9:42 18.3	15:59 2.6	22:03 18.0	
	S	24	4:20 2.8	10:25 17.8	16:42 3.0	22:50 17.5	
☽	M	25	5:06 3.3	11:13 17.2	17:31 3.6	23:40 17.0	
	Tu	26	6:00 3.9	12:08 16.7	18:30 4.1	. . .	
	W	27	0:39 16.5	7:03 4.2	13:10 16.4	19:37 4.3	
	Th	28	1:44 16.4	8:13 4.1	14:19 16.5	20:47 3.8	
N	F	29	2:52 16.9	9:21 3.3	15:24 17.3	21:53 2.8	
	S	30	3:56 17.8	10:24 2.1	16:25 18.5	22:52 1.5	
	S	31	4:54 19.1	11:18 0.8	17:21 19.8	23:44 0.1	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	M	1	5:46 20.4	12:09 —0.5	18:11 21.0	. . .	
P	Tu	2	0:32 —1.0	6:35 21.4	12:57 —1.4	19:00 21.8	
	W	3	1:20 —1.6	7:22 22.1	13:42 —1.8	19:45 22.2	
E	Th	4	2:05 —1.8	8:08 22.2	14:28 —1.8	20:31 22.0	
	F	5	2:52 —1.5	8:55 21.8	15:14 —1.2	21:18 21.4	
	S	6	3:39 —0.8	9:43 20.9	16:08 —0.2	22:08 20.3	
	S	7	4:29 0.4	10:32 19.7	16:55 1.1	23:00 19.0	
☾	M	8	5:24 1.8	11:28 18.3	17:53 2.4	23:57 17.5	
	Tu	9	6:25 3.0	12:28 16.9	18:59 3.6	. . .	
	W	10	1:02 16.3	7:35 4.0	13:36 16.0	20:11 4.2	
S	Th	11	2:12 15.7	8:47 4.2	14:47 15.6	21:20 4.1	
	F	12	3:21 15.7	9:52 3.9	15:52 15.9	22:21 3.6	
	S	13	4:21 16.1	10:48 3.3	16:46 16.4	23:12 3.0	
	S	14	5:10 16.8	11:35 2.7	17:32 17.1	23:55 2.4	
	M	15	5:50 17.5	12:13 2.2	18:08 17.8	. . .	
A	Tu	16	0:30 2.0	6:25 18.0	12:47 1.8	18:40 18.3	
●	W	17	1:02 1.6	6:56 18.6	13:17 1.5	19:12 18.8	
	Th	18	1:31 1.4	7:28 19.0	13:46 1.3	19:43 19.2	
E	F	19	2:01 1.3	8:00 19.3	14:17 1.3	20:17 19.4	
	S	20	2:32 1.3	8:34 19.3	14:50 1.4	20:52 19.2	
	S	21	3:07 1.5	9:11 19.1	15:26 1.7	21:30 18.9	
	M	22	3:45 1.9	9:52 18.6	16:06 2.3	22:15 18.3	
	Tu	23	4:29 2.6	10:39 17.9	16:55 3.0	23:05 17.5	
☽	W	24	5:21 3.3	11:32 17.1	17:51 3.7	. . .	
	Th	25	0:02 16.8	6:25 4.1	12:35 16.5	19:00 4.3	
N	F	26	1:10 16.4	7:38 4.3	13:47 16.4	20:18 4.1	
	S	27	2:24 16.5	8:55 3.7	15:00 17.0	21:30 3.1	
	S	28	3:38 17.4	10:02 2.5	16:05 18.1	22:32 1.7	
	M	29	4:34 18.8	11:00 1.0	17:02 19.6	23:27 0.2	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	5:28 20.3	11:50 —0.5	17:52 21.0	. . .	
○	W	2	0:15 —1.2	6:17 21.5	12:38 2.4	18:40 22.0	
E	Th	3	1:00 —2.0	7:02 22.3	13:22 —2.2	19:25 22.5	
	F	4	1:44 —2.3	7:47 22.5	14:07 —2.2	20:10 22.4	
	S	5	2:28 —1.9	8:32 22.2	14:52 —1.6	20:54 21.8	
	S	6	3:14 —1.1	9:18 21.2	15:37 —0.5	21:41 20.5	
	M	7	4:02 0.2	10:05 19.8	16:27 0.9	22:30 19.0	
	Tu	8	4:53 1.8	10:57 18.3	17:21 2.5	23:25 17.5	
☾	W	9	5:52 3.2	11:55 16.8	18:24 3.8	. . .	
S	Th	10	0:27 16.1	7:00 4.4	13:02 15.6	19:36 4.7	
	F	11	1:38 15.3	8:15 4.8	14:15 15.0	20:51 4.7	
	S	12	2:51 15.0	9:25 4.5	15:25 15.2	21:55 4.2	
	S	13	3:54 15.5	10:22 3.9	16:20 15.9	22:48 3.5	
A	M	14	4:44 16.3	11:10 3.1	17:05 16.7	23:30 2.7	
	Tu	15	5:25 17.2	11:47 2.4	17:42 17.6	. . .	
	W	16	0:05 2.1	5:58 18.0	12:20 1.8	18:15 18.3	
●	Th	17	0:35 1.5	6:30 18.7	12:50 1.3	18:45 19.0	
E	F	18	1:04 1.1	7:00 19.4	13:20 1.0	19:17 19.6	
	S	19	1:34 0.9	7:32 19.8	13:50 0.8	19:50 19.9	
	S	20	2:06 0.7	8:08 19.9	14:24 0.8	20:26 19.9	
	M	21	2:40 0.9	8:44 19.7	15:00 1.2	21:05 19.5	
	Tu	22	3:19 1.4	9:25 19.2	15:40 1.8	21:48 18.8	
	W	23	4:04 2.2	10:12 18.3	16:27 2.6	22:40 17.8	
N ☽	Th	24	4:55 3.1	11:05 17.4	17:25 3.5	23:37 17.0	
	F	25	6:00 4.0	12:10 16.6	18:36 4.3	. . .	
	S	26	0:46 16.3	7:15 4.3	13:24 16.3	19:55 4.2	
	S	27	2:02 16.4	8:33 3.8	14:38 16.8	21:09 3.3	
	M	28	3:12 17.2	9:43 2.6	15:45 17.9	22:12 1.9	
P	Tu	29	4:15 18.6	10:40 1.1	16:42 19.4	23:07 0.3	
E	W	30	5:08 20.1	11:32 —0.4	17:32 20.8	23:55 —1.0	
○	Th	31	5:57 21.3	12:18 —1.5	18:19 21.8	. . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:38	6:41	13:00	19:03		S	1	1:02	7:02	13:23	19:25		W	1	2:05	8:06	14:27	20:26
			—2.0	22.2	—2.0	22.3				—1.3	21.4	—1.2	21.3				0.5	19.7	0.7	19.4
	S	2	1:22	7:25	13:44	19:47		M	2	1:45	7:45	14:05	20:07		Th	2	2:47	8:47	15:08	21:08
			—2.1	22.3	—2.0	22.2				—1.0	21.1	—0.7	20.8				1.2	19.0	1.6	18.7
	S	3	2:05	8:09	14:27	20:30	S	Tu	3	2:26	8:27	14:48	20:50		F	3	3:30	9:30	15:52	21:52
			—1.7	21.9	—1.4	21.5				—0.3	20.4	0.2	19.9				2.0	18.2	2.5	17.8
	M	4	2:50	8:51	15:12	21:15		W	4	3:10	9:11	15:33	21:35		S	4	4:15	10:15	16:38	22:40
			—0.9	21.0	—0.3	20.4				0.8	19.4	1.4	18.7				3.0	17.3	3.5	16.8
	Tu	5	3:34	9:37	16:00	22:00		Th	5	3:57	9:59	16:21	22:24	A	S	5	5:03	11:03	17:30	23:30
			0.4	19.7	1.1	19.0				2.0	18.1	2.7	17.5				3.9	16.4	4.3	16.0
S	W	6	4:23	10:27	16:50	22:53		F	6	4:47	10:48	17:15	23:16	☾	M	6	5:57	11:58	18:26	. . .
			1.9	18.2	2.6	17.4				3.3	16.8	3.8	16.3				4.6	15.8	4.8	. . .
☾	Th	7	5:19	11:22	17:50	23:52	☾	S	7	5:45	11:45	18:16	. . .	E	Tu	7	0:25	6:56	12:55	19:25
			3.3	16.7	4.0	16.0				4.4	15.8	4.8	. . .				15.6	5.0	15.4	5.0
	F	8	6:23	12:25	19:00	. . .	A	S	8	0:15	6:48	12:47	19:22		W	8	1:24	7:55	13:54	20:25
			4.5	15.5	4.9	. . .				15.4	5.0	15.1	5.2				15.4	4.9	15.5	4.7
	S	9	1:00	7:36	13:35	20:12		M	9	1:20	7:55	13:52	20:26		Th	9	2:22	8:52	14:51	21:20
			15.1	5.1	14.9	5.1				15.0	5.2	15.0	5.0				15.7	4.5	16.0	4.0
A	S	10	2:10	8:46	14:44	21:19		Tu	10	2:22	8:56	14:53	21:24		F	10	3:18	9:45	15:45	22:10
			14.8	5.0	14.9	4.7				15.1	4.7	15.4	4.4				16.4	3.6	16.8	3.2
	M	11	3:15	9:45	15:42	22:11	E	W	11	3:18	9:49	15:42	22:11		S	11	4:08	10:35	16:32	22:57
			15.2	4.4	15.5	4.0				15.8	4.0	16.2	3.6				17.3	2.7	17.8	2.2
	Tu	12	4:07	10:34	16:28	22:55		Th	12	4:05	10:32	16:27	22:52		S	12	4:56	11:20	17:18	23:40
			16.0	3.5	16.4	3.1				16.7	3.1	17.1	2.7				18.3	1.7	18.8	1.2
E	W	13	4:49	11:13	17:08	23:31		F	13	4:48	11:12	17:08	23:30	●	M	13	5:40	12:02	18:03	. . .
			16.9	2.7	17.4	2.3				17.7	2.2	18.2	1.8				19.3	0.8	19.8	. . .
	Th	14	5:25	11:48	17:42	. . .		S	14	5:27	11:48	17:47	. . .	N	Tu	14	0:23	6:25	12:45	18:46
			17.9	1.9	18.4	. . .				18.7	1.3	19.1	. . .				0.4	20.2	0.1	20.5
●	F	15	0:04	6:00	12:20	18:16	●	S	15	0:07	6:06	12:25	18:25		W	15	1:06	7:08	13:28	19:50
			1.5	18.8	1.2	19.2				1.0	19.5	0.7	19.9				0.0	20.7	—0.2	20.8
	S	16	0:36	6:32	12:51	18:50		M	16	0:43	6:45	13:04	19:05		Th	16	1:50	7:52	14:12	20:16
			0.9	19.5	0.7	19.8				0.5	20.2	0.3	20.4				—0.2	20.8	—0.2	20.8
	S	17	1:09	7:07	13:25	19:25		Tu	17	1:22	7:26	13:44	19:45	P	F	17	2:36	8:40	15:00	21:04
			0.6	20.0	0.5	20.2				0.2	20.5	0.2	20.5				0.0	20.6	0.2	20.3
	M	18	1:43	7:43	14:01	20:03	N	W	18	2:05	8:07	14:25	20:29		S	18	3:24	9:28	15:48	21:54
			0.4	20.2	0.5	20.2				0.2	20.4	0.4	20.2				0.5	20.0	0.8	19.6
	Tu	19	2:20	8:23	14:38	20:44		Th	19	2:47	8:52	15:12	21:16		S	19	4:16	10:20	16:42	22:50
			0.6	20.0	0.8	19.8				0.6	19.9	1.0	19.6				1.2	19.2	1.6	18.8
N	W	20	3:00	9:06	15:22	21:29		F	20	3:35	9:41	16:00	22:07	☽ E	M	20	5:12	11:18	17:42	23:49
			1.0	19.5	1.4	19.1				1.3	19.1	1.8	18.7				2.0	18.3	2.4	17.9
	Th	21	3:46	9:54	16:11	22:21		S	21	4:29	10:36	16:58	23:05		Tu	21	6:15	12:20	18:48	. . .
			1.9	18.7	2.3	18.1				2.2	18.3	2.6	17.8				2.7	17.5	3.0	. . .
	F	22	4:40	10:50	17:10	23:20	☽ P	S	22	5:30	11:37	18:02	. . .		W	22	0:53	7:22	13:27	19:55
			2.8	17.6	3.2	17.3				3.0	17.5	3.3	. . .				17.2	3.2	17.1	3.2
☽	S	23	5:44	11:52	18:19	. . .		M	23	0:10	6:37	12:45	19:14		Th	23	2:00	8:29	14:33	21:04
			3.7	16.8	3.9	. . .				17.2	3.5	17.0	3.5				17.0	3.1	17.0	2.9
	S	24	0:27	6:57	13:05	19:35	E	Tu	24	1:19	7:50	13:54	20:24		F	24	3:05	9:35	15:36	22:04
			16.6	4.1	16.5	4.0				16.9	3.4	17.0	3.1				17.2	2.7	17.4	2.4
	M	25	1:41	8:12	14:07	20:59		W	25	2:27	8:57	15:00	21:27		S	25	4:05	10:32	16:32	22:59
			16.5	3.7	16.8	3.2				17.2	2.8	17.5	2.4				17.6	2.1	17.9	1.8
P	Tu	26	2:52	9:21	15:24	21:51		Th	26	3:30	9:58	15:58	22:25		S	26	4:59	11:24	17:22	23:46
			17.2	2.7	17.8	2.0				17.9	1.9	18.3	1.4				18.2	1.5	18.5	1.2
E	W	27	3:54	10:20	16:20	22:47		F	27	4:25	10:50	16:51	23:15	S ○	M	27	5:45	12:08	18:07	. . .
			18.4	1.4	19.0	0.7				18.7	1.0	19.1	0.6				18.8	1.0	19.0	. . .
	Th	28	4:47	11:10	17:12	23:35		S	28	5:15	11:37	17:40	. . .		Tu	28	0:30	6:27	12:50	18:47
			19.6	0.1	20.2	—0.4				19.5	0.3	19.8	. . .				0.8	19.1	0.8	19.2
○	F	29	5:35	11:57	17:58	. . .	○	S	29	0:01	6:01	12:23	18:22		W	29	1:09	7:07	13:30	19:27
			20.7	—0.8	21.0	. . .				0.0	20.0	—0.1	20.2				0.8	19.2	0.9	19.2
	S	30	0:18	6:20	12:40	18:42		M	30	0:44	6:44	13:06	19:05		Th	30	1:48	7:46	14:07	20:05
			—1.2	21.3	—1.3	21.5				—0.2	20.3	—0.2	20.3				1.0	19.2	1.2	19.0
							S	Tu	31	1:25	7:25	13:46	19:46							
										0.0	20.2	0.2	20.0							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							AUGUST.							SEPTEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:25 1.4	8:24 18.9	14:44 1.6	20:43 18.7	E	M	1	3:08 1.8	9:07 18.7	15:25 2.1	21:27 18.5		Th	1	3:47 2.2	9:58 18.4	16:07 2.5	22:15 18.0
	S	2	3:02 1.8	9:02 18.5	15:22 2.2	21:22 18.2		Tu	2	3:43 2.3	9:47 18.2	16:02 2.6	22:07 18.0		F	2	4:30 2.9	10:40 17.6	16:55 3.3	23:05 17.2
A	S	3	3:41 2.5	9:41 17.9	16:02 2.8	22:00 17.6		W	3	4:23 2.9	10:27 17.6	16:44 3.2	22:51 17.3	☾	S	3	5:23 3.7	11:34 16.8	17:53 4.1	. . . . . .
	M	4	4:22 3.2	10:23 17.3	16:44 3.5	22:46 17.0	☾	Th	4	5:08 3.5	11:16 17.0	17:34 3.9	23:42 16.7	N	S	4	0:05 16.5	6:27 4.4	12:38 16.2	19:04 4.6
E ☾	Tu	5	5:07 3.8	11:10 16.7	17:32 4.1	23:35 16.4		F	5	6:02 4.2	12:11 16.4	18:32 4.4	. . . . . .		M	5	1:14 16.0	7:42 4.5	13:50 16.1	20:20 4.3
	W	6	5:58 4.4	12:00 16.3	18:25 4.5	. . . . . .		S	6	0:41 16.2	7:06 4.6	13:14 16.0	19:40 4.6		Tu	6	2:27 16.4	8:59 3.8	15:02 16.8	21:32 3.2
	Th	7	0:28 16.0	6:55 4.7	12:58 15.9	19:25 4.7		S	7	1:48 16.0	8:17 4.4	14:23 16.3	20:52 4.0		W	7	3:35 17.4	10:05 2.5	16:07 18.1	22:34 1.7
	F	8	1:28 15.9	7:57 4.6	14:00 16.0	20:28 4.4	N	M	8	2:57 16.6	9:26 3.6	15:29 17.0	21:59 3.0		Th	8	4:37 18.9	11:00 0.9	17:02 19.6	23:26 0.1
	S	9	2:31 16.2	9:00 4.1	15:00 16.5	21:30 3.7		Tu	9	4:00 17.6	10:27 2.3	16:29 18.3	22:55 1.6	P ●	F	9	5:28 20.4	11:50 —0.6	17:52 21.1	. . . . .
	S	10	3:30 16.9	9:59 3.2	16:00 17.4	22:26 2.6		W	10	4:57 19.0	11:20 0.9	17:22 19.6	23:46 0.2	E	S	10	0:15 —1.2	6:16 21.7	12:37 —1.8	18:40 22.2
	M	11	4:26 17.9	10:51 2.0	16:52 18.5	23:17 1.5	●	Th	11	5:48 20.3	12:10 —0.4	18:13 20.9	. . . . . .		S	11	1:00 —2.0	7:02 22.5	13:20 —2.3	19:25 22.6
N	Tu	12	5:18 19.1	11:42 0.9	17:42 19.6	. . . . . .	P	F	12	0:32 —0.9	6:31 21.4	12:57 —1.4	19:00 21.8		M	12	1:43 —2.3	7:46 22.6	14:05 —2.2	20:09 22.5
●	W	13	0:05 0.3	6:06 20.2	12:28 —0.1	18:30 20.6		S	13	1:19 —1.7	7:22 22.1	13:42 —1.8	19:45 22.3		Tu	13	2:27 —2.0	8:31 22.3	14:51 —1.7	20:53 21.8
	Th	14	0:50 —0.5	6:58 21.0	13:14 —0.8	19:15 21.3	E	S	14	2:04 —1.9	8:07 22.3	14:27 —1.8	20:30 22.2		W	14	3:14 —1.1	9:17 21.3	15:36 —0.5	21:40 20.6
P	F	15	1:36 —1.0	7:39 21.5	13:58 —1.0	20:02 21.5		M	15	2:49 —1.6	8:53 21.9	15:12 —1.3	21:17 21.5		Th	15	4:00 0.2	10:05 19.9	16:26 0.9	22:31 19.0
	S	16	2:22 —1.0	8:25 21.5	14:45 —0.9	20:49 21.3		Tu	16	3:36 —0.8	9:40 21.0	16:00 —0.2	22:05 20.4	☽	F	16	4:55 1.7	11:00 18.3	17:24 2.5	23:27 17.5
	S	17	3:08 —0.7	9:12 21.0	15:32 —0.4	21:37 20.7		W	17	4:27 0.4	10:31 19.7	16:52 1.1	22:57 19.0	S	S	17	5:55 3.2	11:59 16.8	18:30 3.8	. . . . . .
E	M	18	3:58 0.1	10:02 20.2	16:23 0.5	22:28 19.7	☽	Th	18	5:22 1.8	11:26 18.2	17:52 2.4	23:57 17.5		S	18	0:33 16.2	7:06 4.3	13:08 15.7	19:44 4.5
☽	Tu	19	4:50 1.1	10:56 19.2	17:18 1.5	23:24 18.6		F	19	6:24 3.1	12:28 16.9	19:00 3.6	. . . . . .		M	19	1:45 15.4	8:22 4.6	14:25 15.3	20:59 4.4
	W	20	5:48 2.1	11:54 18.0	18:20 2.6	. . . . . .		S	20	1:02 16.3	7:35 4.0	13:38 16.0	20:12 4.2		Tu	20	3:00 15.3	9:31 4.2	15:32 15.6	22:00 3.9
	Th	21	0:25 17.5	6:54 3.0	12:57 17.0	19:26 3.4	S	S	21	2:15 15.7	8:50 4.2	14:52 15.7	21:25 4.0		W	21	4:02 15.9	10:30 3.5	16:27 16.3	22:53 3.1
	F	22	1:32 16.7	8:02 3.5	14:06 16.4	20:38 3.6		M	22	3:25 15.8	9:57 3.7	15:58 16.0	22:27 3.4		Th	22	4:51 16.7	11:15 2.7	17:12 17.0	23:35 2.3
	S	23	2:41 16.4	9:13 3.5	15:14 16.4	21:45 3.3		Tu	23	4:26 16.4	10:52 3.0	16:52 16.7	23:17 2.7	A	F	23	5:30 17.5	11:52 2.1	17:48 17.8	. . . . . .
S	S	24	3:46 16.6	10:15 3.0	16:16 16.9	22:43 2.7		W	24	5:15 17.1	11:40 2.3	17:36 17.5	23:59 2.1	○ E	S	24	0:09 1.9	6:04 18.2	12:25 1.6	18:20 18.5
	M	25	4:43 17.1	11:09 2.4	17:08 17.4	23:33 2.1		Th	25	5:55 17.8	12:17 1.8	18:14 18.1	. . . . . .		S	25	0:40 1.4	6:33 18.8	12:52 1.2	18:48 19.0
	Tu	26	5:32 17.8	11:56 1.8	17:54 18.0	. . . . . .	○	F	26	0:35 1.6	6:30 18.4	12:51 1.5	18:46 18.6		M	26	1:08 1.2	7:04 19.3	13:02 1.1	19:20 19.5
○	W	27	0:16 1.6	6:14 18.3	12:37 1.4	18:32 18.5	A	S	27	1:07 1.3	7:02 18.8	13:21 1.3	19:17 19.0		Tu	27	1:36 1.0	7:35 19.6	13:52 1.0	19:52 19.6
	Th	28	0:54 1.3	6:50 18.7	13:12 1.2	19:10 18.8	E	S	28	1:38 1.2	7:32 19.2	13:50 1.2	19:48 19.3		W	28	2:07 1.0	8:08 19.6	14:24 1.1	20:26 19.5
	F	29	1:30 1.2	7:25 18.9	13:45 1.3	19:42 18.9		M	29	2:05 1.2	8:03 19.3	14:20 1.3	20:20 19.3		Th	29	2:43 1.2	8:45 19.4	15:00 1.5	21:05 19.1
A	S	30	2:02 1.3	8:00 19.0	14:18 1.5	20:16 19.0		Tu	30	2:37 1.4	8:37 19.2	14:52 1.5	20:54 19.1		F	30	3:19 1.8	9:26 18.8	15:40 2.2	21:49 18.5
	S	31	2:34 1.6	8:32 18.9	14:50 1.7	20:50 18.8		W	31	3:10 1.7	9:13 18.9	15:27 1.9	21:32 18.7							

The tides are placed in the order o occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	4:04 2.5	10:12 18.0	16:28 2.9	22:39 17.5	
N ☾	S	2	4:56 3.3	11:07 17.2	17:26 3.7	23:38 16.8	
	M	3	6:00 4.1	12:12 16.4	18:37 4.4	. . .	
	Tu	4	0:47 16.2	7:16 4.4	13:24 16.2	19:55 4.2	
	W	5	2:02 16.4	8:34 3.8	14:38 16.8	21:09 3.2	
	Th	6	3:12 17.3	9:40 2.5	15:46 18.0	22:10 1.8	
	F	7	4:12 18.8	10:38 1.0	16:40 19.5	23:04 0.2	
P E	S	8	5:06 20.3	11:30 —0.5	17:30 20.9	23:53 —1.1	
●	S	9	5:54 21.5	12:15 —1.6	18:17 22.0	. . .	
	M	10	0:37 —1.9	6:40 22.3	12:59 —2.2	19:02 22.4	
	Tu	11	1:21 —2.2	7:24 22.4	13:43 —2.0	19:46 22.3	
	W	12	2:05 —1.8	8:07 22.0	14:27 —1.4	20:30 21.6	
	Th	13	2:50 —1.0	8:54 21.1	15:13 —0.4	21:16 20.5	
S	F	14	3:37 0.3	9:40 19.8	16:02 1.0	22:06 19.0	
	S	15	4:28 1.8	10:32 18.2	16:56 2.5	23:00 17.5	
☽	S	16	5:26 3.2	11:30 16.8	18:00 3.8	. . .	
	M	17	0:00 16.2	6:32 4.3	12:35 15.7	19:10 4.6	
	Tu	18	1:10 15.3	7:46 4.7	13:46 15.1	20:21 4.7	
	W	19	2:21 15.1	8:52 4.6	14:54 15.3	21:26 4.3	
A	Th	20	3:24 15.5	9:54 4.0	15:50 15.9	22:19 3.6	
	F	21	4:15 16.3	10:40 3.2	16:35 16.7	23:00 2.9	
E	S	22	4:55 17.1	11:18 2.6	17:12 17.5	23:35 2.3	
	S	23	5:30 17.9	11:52 2.0	17:47 18.2	. . .	
○	M	24	0:07 1.7	6:02 18.6	12:23 1.4	18:19 18.9	
	Tu	25	0:39 1.2	6:35 19.2	12:55 1.0	18:52 19.5	
	W	26	1:10 0.9	7:10 19.7	13:27 0.9	19:26 19.8	
	Th	27	1:44 0.9	7:45 19.8	14:02 0.9	20:04 19.8	
	F	28	2:20 1.0	8:23 19.7	14:40 1.2	20:45 19.5	
N	S	29	3:00 1.4	9:06 19.2	15:22 1.7	21:30 18.8	
	S	30	3:47 2.1	9:54 18.4	16:10 2.6	22:20 18.0	
☾	M	31	4:39 2.9	10:50 17.5	17:10 3.3	23:19 17.2	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	5:42 3.7	11:52 16.9	18:19 3.9	. . .	
	W	2	0:27 16.7	6:55 4.0	13:02 16.5	19:30 3.9	
	Th	3	1:38 16.7	8:09 3.6	14:14 16.9	20:43 3.2	
E	F	4	2:48 17.4	9:17 2.6	15:19 17.9	21:47 2.0	
P	S	5	3:48 18.5	10:15 1.3	16:16 19.1	22:42 0.7	
	S	6	4:42 19.7	11:07 0.0	17:08 20.3	23:31 —0.4	
●	M	7	5:32 20.8	11:54 —0.9	17:56 21.1	. . .	
	Tu	8	0:17 —1.2	6:18 21.4	12:40 —1.4	18:40 21.6	
	W	9	1:00 —1.4	7:02 21.6	13:22 —1.4	19:25 21.5	
	Th	10	1:45 —1.2	7:47 21.3	14:07 —0.8	20:09 21.0	
S	F	11	2:30 —0.4	8:31 20.6	14:52 0.0	20:54 20.1	
	S	12	3:14 0.6	9:17 19.5	15:39 1.2	21:41 18.9	
	S	13	4:04 1.8	10:05 18.3	16:29 2.5	22:30 17.7	
	M	14	4:57 3.0	10:59 17.0	17:25 3.6	23:27 16.5	
☽	Tu	15	5:55 4.1	11:56 16.0	18:27 4.5	. . .	
	W	16	0:27 15.6	7:00 4.7	13:00 15.3	19:34 4.8	
A	Th	17	1:32 15.2	8:07 4.8	14:05 15.2	20:38 4.7	
E	F	18	2:34 15.3	9:05 4.5	15:00 15.5	21:30 4.2	
	S	19	3:26 15.8	9:52 3.9	15:50 16.2	22:15 3.6	
	S	20	4:10 16.6	10:38 3.2	16:32 17.0	22:57 2.8	
	M	21	4:58 17.4	11:17 2.5	17:12 17.9	23:35 2.0	
	Tu	22	5:32 18.3	11:52 1.7	17:50 18.7	. . .	
○	W	23	0:12 1.4	6:10 19.1	12:29 1.1	18:27 19.4	
	Th	24	0:48 0.9	6:47 19.7	13:06 0.8	19:06 19.9	
N	F	25	1:25 0.7	7:26 20.0	13:45 0.7	19:46 20.0	
	S	26	2:05 0.7	8:08 20.0	14:25 0.8	20:28 19.9	
	S	27	2:48 1.0	8:52 19.6	15:10 1.2	21:15 19.4	
	M	28	3:35 1.5	9:40 19.0	16:00 1.9	22:07 18.7	
	Tu	29	4:27 2.2	10:35 18.3	16:56 2.6	23:04 17.9	
☾	W	30	5:26 2.9	11:34 17.5	17:57 3.2	. . .	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	0:05 17.3	6:32 3.4	12:40 17.1	19:06 3.4	
E	F	2	1:14 17.0	7:42 3.3	13:47 17.1	20:17 3.1	
P	S	3	2:22 17.3	8:50 2.8	14:52 17.6	21:21 2.4	
	S	4	3:22 17.9	9:50 2.0	15:52 18.3	22:20 1.5	
	M	5	4:21 18.8	10:46 1.0	16:47 19.2	23:12 0.6	
	Tu	6	5:15 19.6	11:37 0.2	17:37 19.9	. . .	
●	W	7	0:00 0.0	6:02 20.2	12:22 —0.3	18:22 20.4	
S	Th	8	0:45 —0.4	6:45 20.5	13:06 —0.4	19:06 20.6	
	F	9	1:28 —0.3	7:28 20.4	13:50 —0.1	19:50 20.3	
	S	10	2:10 0.1	8:11 20.0	14:33 0.5	20:32 19.7	
	S	11	2:56 0.8	8:54 19.4	15:15 1.3	21:15 18.9	
	M	12	3:37 1.7	9:37 18.5	16:00 2.2	22:00 18.0	
	Tu	13	4:24 2.7	10:25 17.5	16:48 3.2	22:50 17.0	
☽	W	14	5:14 3.6	11:14 16.6	17:40 4.0	23:40 16.2	
A E	Th	15	6:08 4.4	12:07 15.9	18:35 4.7	. . .	
	F	16	0:35 15.7	7:05 4.9	13:05 15.5	19:35 4.9	
	S	17	1:34 15.4	8:05 4.9	14:02 15.4	20:35 4.8	
	S	18	2:30 15.6	9:00 4.5	14:58 15.8	21:28 4.2	
	M	19	3:25 16.2	9:54 3.9	15:50 16.5	22:17 3.4	
	Tu	20	4:15 17.0	10:40 3.0	16:37 17.4	23:04 2.6	
	W	21	5:00 17.9	11:25 2.1	17:22 18.4	23:46 1.6	
○	Th	22	5:45 18.9	12:07 1.2	18:07 19.3	. . .	
N	F	23	0:27 0.8	6:27 19.7	12:47 0.5	18:48 20.0	
	S	24	1:08 0.3	7:10 20.3	13:20 0.2	19:30 20.5	
	S	25	1:50 0.1	7:54 20.6	14:13 0.1	20:16 20.5	
	M	26	2:37 0.1	8:40 20.5	15:00 0.3	21:02 20.2	
P	Tu	27	3:22 0.6	9:27 20.0	15:47 0.9	21:52 19.6	
	W	28	4:12 1.2	10:19 19.2	16:39 1.6	22:46 18.8	
E ☾	Th	29	5:07 2.0	11:14 18.4	17:35 2.3	23:45 18.0	
	F	30	6:07 2.7	12:16 17.6	18:41 3.0	. . .	
	S	31	0:47 17.4	7:15 3.2	13:20 17.1	19:50 3.3	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.1 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil: 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							FEBRUARY.							MARCH.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	4:21 2.5	10:55 15.1	16:50 1.9	23:22 15.6	○	M	1	5:52 0.4	12:22 16.6	18:14 0.9	. . . . . .	P	Tu	1	5:34 0.4	12:04 16.6	17:58 0.9	. . . . . .
N	S	2	5:17 1.5	11:49 16.6	17:42 1.3	. . . . . .	P	Tu	2	0:40 17.4	6:41 —0.5	13:10 17.3	19:02 0.3	○	W	2	0:22 17.6	6:24 —0.6	12:50 17.5	18:45 0.1
○	S	3	0:10 16.4	6:08 0.4	12:38 16.7	18:30 0.7		W	3	1:26 18.0	7:28 —1.2	13:56 17.6	19:45 0.0	E	Th	3	1:08 18.3	7:09 —1.3	13:34 18.0	19:27 —0.3
P	M	4	0:57 17.2	6:56 —0.3	13:25 17.0	19:16 0.4	E	Th	4	2:10 18.1	8:15 —1.4	14:40 17.6	20:30 0.0		F	4	1:52 18.5	7:52 —1.6	14:20 18.0	20:11 —0.3
	Tu	5	1:41 17.4	7:42 —0.8	14:12 17.2	20:00 0.4		F	5	2:55 17.9	8:58 —1.2	15:25 17.3	21:15 0.4		S	5	2:35 18.3	8:36 —1.3	15:02 17.6	20:52 0.0
	W	6	2:27 17.5	8:30 —0.9	14:58 17.0	20:48 0.6		S	6	3:41 17.3	9:43 —0.7	16:12 16.6	22:02 1.1		S	6	3:18 17.6	9:18 —0.7	15:46 16.8	21:37 0.7
	Th	7	3:14 17.2	9:17 —0.7	15:47 16.6	21:34 1.0		S	7	4:28 16.4	10:30 0.2	17:02 15.7	22:50 2.0		M	7	4:04 16.6	10:08 0.2	16:34 15.8	22:24 1.7
E	F	8	4:02 16.6	10:14 —0.2	16:37 16.0	22:24 1.7	☾	M	8	5:20 15.4	11:22 1.3	17:59 14.8	23:46 3.0		Tu	8	4:54 15.5	10:52 1.4	17:26 14.7	23:12 2.7
☾	S	9	4:53 15.9	10:56 0.6	17:32 15.4	23:18 2.4		Tu	9	6:20 14.5	12:18 2.3	19:00 14.1	. . . . . .	☾	W	9	5:48 14.4	11:46 2.6	18:25 13.8	. . . . . .
	S	10	5:50 15.1	11:52 1.4	18:31 14.7	. . . . . .		W	10	0:49 3.8	7:25 13.8	13:23 3.2	20:04 13.7	S	Th	10	0:12 3.7	6:52 13.6	12:47 3.6	19:30 13.2
	M	11	0:19 3.2	6:51 14.5	12:52 2.3	19:33 14.3	S	Th	11	1:59 4.3	8:31 13.6	14:33 3.7	21:09 13.7		F	11	1:20 4.3	8:00 13.3	13:59 4.3	20:36 13.1
	Tu	12	1:26 3.7	7:57 14.2	13:56 2.8	20:37 14.2		F	12	3:10 4.2	9:35 13.7	15:40 3.7	22:09 14.0		S	12	2:31 4.4	9:05 13.3	15:10 4.4	21:37 13.4
	W	13	2:35 3.9	9:01 14.1	15:02 3.0	21:36 14.4		S	13	4:13 3.7	10:34 14.1	16:38 3.3	23:00 14.5		S	13	3:39 4.0	10:05 13.7	16:13 4.0	22:30 14.0
	Th	14	3:42 3.7	10:00 14.4	16:04 2.8	22:34 14.7		S	14	5:05 3.0	11:25 14.7	17:30 2.9	23:46 15.1	A	M	14	4:34 3.2	10:58 14.4	17:04 3.4	23:17 14.7
S	F	15	4:40 3.1	10:56 14.7	17:00 2.5	23:24 15.2		M	15	5:48 2.2	12:10 15.2	18:12 2.5	. . . . . .		Tu	15	5:18 2.4	11:44 15.0	17:45 2.9	23:59 15.4
	S	16	5:30 2.5	11:46 15.2	17:49 2.2	. . . . . .	A ●	Tu	16	0:24 15.6	6:26 1.6	12:52 15.6	18:45 2.3		W	16	5:57 1.6	12:25 15.5	18:20 2.4	. . . . . .
●	S	17	0:09 15.6	6:12 2.0	12:32 15.6	18:31 2.0		W	17	1:04 16.0	7:02 1.0	13:29 15.9	19:17 2.1	● E	Th	17	0:36 16.0	6:33 0.9	13:02 15.9	18:50 2.0
	M	18	0:51 15.9	6:50 1.5	13:12 15.8	19:07 2.0		Th	18	1:40 16.0	7:35 0.6	14:05 15.8	19:47 2.0		F	18	1:11 16.2	7:07 0.4	13:36 16.0	19:19 1.6
A	Tu	19	1:29 16.0	7:25 1.1	13:52 15.8	19:41 2.0	E	F	19	2:10 16.0	8:07 0.3	14:37 15.6	20:13 1.8		S	19	1:43 16.4	7:40 0.1	14:07 15.9	19:47 1.3
	W	20	2:05 15.8	7:59 0.9	14:30 15.6	20:12 2.1		S	20	2:40 15.7	8:39 0.2	15:09 15.3	20:46 1.7		S	20	2:15 16.1	8:12 0.0	14:38 15.5	20:19 1.1
	Th	21	2:37 15.5	8:32 0.7	15:04 15.3	20:42 2.3		S	21	3:12 15.4	9:16 0.4	15:44 14.9	21:18 1.7		M	21	2:48 15.8	8:48 0.3	15:12 15.2	20:53 1.1
	F	22	3:08 15.1	9:07 0.7	15:40 14.9	21:12 2.4		M	22	3:47 15.0	9:54 0.8	16:20 14.4	21:57 1.9		Tu	22	3:15 15.4	9:26 0.7	15:50 14.7	21:35 1.4
E	S	23	3:40 14.7	9:44 0.9	16:17 14.4	21:47 2.5		Tu	23	4:28 14.5	10:36 1.4	17:05 13.8	22:46 2.4		W	23	4:08 14.8	10:08 1.5	16:33 14.0	22:24 1.8
	S	24	4:15 14.3	10:24 1.2	16:59 14.0	22:27 2.7	☽	W	24	5:20 13.8	11:27 2.2	18:00 13.1	23:43 3.0	N ☽	Th	24	5:02 14.0	10:58 2.3	17:28 13.4	23:28 2.6
☽	M	25	5:00 13.9	11:10 1.7	17:47 13.4	23:16 3.1		Th	25	6:29 13.2	12:26 3.1	19:11 12.8	. . . . . .		F	25	6:10 13.3	11:58 3.3	18:41 12.8	. . . . . .
	Tu	26	5:52 13.4	12:02 2.3	18:43 13.0	. . . . . .	N	F	26	0:55 3.5	7:49 13.0	13:40 3.7	20:26 13.1		S	26	0:34 3.2	7:28 13.1	13:14 4.0	20:00 13.1
	W	27	0:16 3.6	7:02 13.0	13:02 3.0	19:50 12.9		S	27	2:18 3.1	9:06 13.6	14:57 3.6	21:37 14.0		S	27	1:56 3.2	8:46 13.6	14:36 3.9	21:15 14.0
	Th	28	1:28 3.8	8:17 13.2	14:12 3.2	21:00 13.4		S	28	3:35 2.8	10:15 14.5	16:07 3.0	22:40 15.3		M	28	3:14 2.7	9:52 14.6	15:47 3.2	22:17 15.3
N	F	29	2:45 3.5	9:29 13.8	15:23 3.1	22:02 14.3		M	29	4:38 1.7	11:13 15.6	17:06 1.9	23:32 16.6	P	Tu	29	4:18 1.7	10:50 15.6	16:48 2.1	23:12 16.4
	S	30	3:56 2.7	10:35 14.7	16:27 2.5	23:00 15.4								E	W	30	5:15 0.5	11:42 16.7	17:38 1.0	. . . . . .
	S	31	4:58 1.6	11:31 15.7	17:24 1.7	23:52 16.4								○	Th	31	0:02 17.5	6:02 —0.5	12:29 17.5	18:25 0.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			APRIL.			
	F	1	0:47 18.1	6:47 —1.1	13:13 18.0	19:07 —0.3
	S	2	1:30 18.4	7:29 —1.3	13:56 18.0	19:50 —0.3
	S	3	2:13 18.0	8:12 —1.0	14:38 17.6	20:30 0.0
	M	4	2:56 17.4	8:54 —0.4	15:20 16.8	21:13 0.7
	Tu	5	3:40 16.5	9:37 0.6	16:05 15.8	21:56 1.5
S	W	6	4:27 15.4	10:22 1.7	16:55 14.6	22:54 2.5
☾	Th	7	5:21 14.4	11:12 2.9	17:50 13.7	23:37 3.4
	F	8	6:20 13.6	12:12 3.9	18:52 13.0	. . . . . .
	S	9	0:40 4.1	7:27 13.2	18:20 4.7	19:57 12.8
A	S	10	1:48 4.3	8:33 13.1	14:32 4.9	21:00 13.0
	M	11	2:55 4.0	9:34 13.6	15:36 4.5	21:55 13.6
	Tu	12	3:52 3.3	10:25 14.1	16:28 3.9	22:42 14.3
E	W	13	4:40 2.5	11:12 14.8	17:10 3.3	23:27 15.1
	Th	14	5:22 1.7	11:52 15.4	17:47 2.6	. . . . . .
●	F	15	0:04 15.8	6:02 1.0	12:32 15.8	18:18 1.9
	S	16	0:42 16.2	6:38 0.5	13:07 16.0	18:50 1.3
	S	17	1:19 16.4	7:13 0.2	13:40 16.0	19:23 0.9
	M	18	1:52 16.3	7:48 0.2	14:14 15.8	19:59 0.6
	Tu	19	2:30 16.0	8:25 0.5	14:48 15.5	20:38 0.6
N	W	20	3:12 15.7	9:04 0.9	15:29 15.0	21:20 0.9
	Th	21	3:58 15.0	9:48 1.7	16:15 14.3	22:10 1.5
	F	22	4:53 14.2	10:38 2.5	17:11 13.6	23:10 2.2
☽	S	23	5:57 13.6	11:39 3.4	18:22 13.2	. . . . . .
	S	24	0:19 2.8	7:11 13.4	12:55 4.0	19:37 13.4
	M	25	1:37 3.0	8:25 13.8	14:14 4.0	20:50 14.2
P	Tu	26	2:50 2.6	9:30 14.6	15:25 3.3	21:53 15.1
E	W	27	3:54 1.7	10:26 15.5	16:26 2.3	22:49 16.1
	Th	28	4:50 0.9	11:18 16.5	17:18 1.3	23:39 17.0
○	F	29	5:40 0.1	12:05 17.2	18:06 0.5	. . . . . .
	S	30	0:26 17.5	6:25 —0.4	12:50 17.6	18:48 0.1

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			MAY.			
	S	1	1:10 17.7	7:09 —0.5	13:32 17.6	19:29 0.0
	M	2	1:52 17.5	7:50 —0.3	14:15 17.3	20:10 0.3
S	Tu	3	2:35 17.0	8:30 0.8	14:57 16.6	20:50 0.7
	W	4	3:19 16.2	9:12 1.1	15:40 15.6	21:31 1.4
	Th	5	4:04 15.3	9:54 2.1	16:25 14.6	22:17 2.2
	F	6	4:53 14.4	10:40 3.1	17:14 13.7	23:03 2.9
☾	S	7	5:49 13.7	11:33 4.0	18:10 13.0	. . . . . .
A	S	8	0:00 3.3	6:50 13.2	12:35 4.7	19:10 12.7
	M	9	1:02 3.8	7:54 13.1	13:40 5.0	20:12 12.8
	Tu	10	2:05 3.8	8:53 13.3	14:43 4.9	21:10 13.3
E	W	11	3:05 3.3	9:47 13.8	15:38 4.4	22:00 14.0
	Th	12	3:57 2.7	10:35 14.4	16:27 3.7	22:50 14.7
	F	13	4:45 2.0	11:20 15.0	17:08 2.8	23:33 15.4
	S	14	5:28 1.3	11:59 15.6	17:47 2.0	. . . . . .
●	S	15	0:15 16.0	6:10 0.9	12:38 16.0	18:25 1.2
	M	16	0:56 16.4	6:48 0.5	13:15 16.2	19:05 0.6
	Tu	17	1:35 16.4	7:27 0.5	13:53 16.1	19:45 0.2
N	W	18	2:17 16.3	8:07 0.7	14:32 15.9	20:27 0.2
	Th	19	3:00 15.9	8:48 1.1	15:15 15.5	21:12 0.5
	F	20	3:50 15.4	9:32 1.7	16:02 14.9	22:05 1.0
	S	21	4:43 14.7	10:25 2.4	16:59 14.3	23:00 1.6
☽ P	S	22	5:43 14.2	11:23 3.2	18:03 14.0	. . . . . .
	M	23	0:05 2.2	6:50 13.9	12:34 3.7	19:13 14.0
E	Tu	24	1:13 2.5	8:00 14.1	13:50 3.8	20:22 14.3
	W	25	2:22 2.4	9:03 14.6	14:58 3.4	21:25 14.9
	Th	26	3:27 2.0	10:00 15.3	16:02 2.7	22:20 15.6
	F	27	4:25 1.4	10:54 16.0	16:57 1.9	23:17 16.2
	S	28	5:17 0.9	11:42 16.6	17:47 1.3	. . . . . .
○	S	29	0:06 16.6	6:05 0.5	12:29 17.0	18:30 0.8
	M	30	0:51 16.9	6:47 0.4	13:13 17.1	19:10 0.5
S	Tu	31	1:34 16.9	7:30 0.6	13:55 16.9	19:52 0.6

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JUNE.			
	W	1	2:17 16.5	8:10 1.0	14:36 16.4	20:30 0.8
	Th	2	3:00 16.0	8:50 1.6	15:15 15.6	21:08 1.2
	F	3	3:41 15.3	9:28 2.3	15:56 14.8	21:50 1.7
	S	4	4:27 14.6	10:10 3.1	16:38 14.0	22:35 2.2
A	S	5	5:15 13.9	10:50 3.8	17:26 13.3	23:20 2.7
☾	M	6	6:09 13.4	11:40 4.3	18:18 12.8	. . . . . .
E	Tu	7	0:14 3.1	7:07 13.1	12:37 4.8	19:16 12.7
	W	8	1:12 3.3	8:05 13.1	13:40 4.8	20:16 12.9
	Th	9	2:12 3.2	9:02 13.3	14:41 4.5	21:15 13.5
	F	10	3:12 3.0	9:53 13.9	15:38 3.9	22:10 14.2
	S	11	4:06 2.5	10:43 14.5	16:31 3.0	23:01 14.9
	S	12	4:57 1.9	11:30 15.3	17:20 2.0	23:50 15.6
●	M	13	5:43 1.3	12:12 15.9	18:05 1.1	. . . . . .
N	Tu	14	0:35 16.2	6:27 0.9	12:55 16.4	18:48 0.3
	W	15	1:20 16.5	7:10 0.7	13:38 16.6	19:33 —0.1
	Th	16	2:05 16.6	7:52 0.7	14:20 16.6	20:19 —0.3
P	F	17	2:51 16.4	8:36 1.0	15:03 16.3	21:05 —0.2
	S	18	3:39 16.0	9:22 1.4	15:50 15.8	21:55 0.2
	S	19	4:29 15.4	10:12 2.0	16:44 15.3	22:48 0.8
☽ E	M	20	5:25 14.9	11:07 2.6	17:42 14.7	23:45 1.5
	Tu	21	6:25 14.5	12:10 3.2	18:46 14.5	. . . . . .
	W	22	0:47 2.1	7:30 14.3	13:19 3.6	19:52 14.3
	Th	23	1:53 2.4	8:34 14.5	14:29 3.6	20:59 14.5
	F	24	2:59 2.5	9:35 14.8	15:37 3.2	21:59 14.9
	S	25	4:00 2.2	10:31 15.3	16:37 2.7	22:55 15.3
	S	26	4:56 1.8	11:22 15.9	17:28 2.0	23:45 15.8
S ○	M	27	5:47 1.5	12:10 16.3	18:14 1.4	. . . . . .
	Tu	28	0:32 16.2	6:32 1.3	12:54 16.5	18:55 1.0
	W	29	1:17 16.4	7:12 1.3	13:35 16.5	19:32 0.8
	Th	30	2:00 16.2	7:50 1.5	14:14 16.3	20:09 0.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p.m.), and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p.m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	2:38	8:27	14:51	20:46		E	M	1	3:27	9:02	15:29	21:30			Th	1	4:02	9:40	16:10	22:13	
			15.9	1.9	15.8	0.9					15.2	2.2	15.0	0.8					14.4	1.9	14.6	1.3	
	S	2	3:18	9:00	15:26	21:22			Tu	2	4:02	9:34	16:08	22:07			F	2	4:41	10:22	16:57	23:00	
			15.4	2.3	15.2	1.1					14.7	2.5	14.5	1.1					13.9	2.2	14.0	2.1	
A	S	3	3:58	9:35	16:04	22:00			W	3	4:40	10:09	16:41	22:50		☾	S	3	5:30	11:14	17:56	23:54	
			14.9	2.8	14.4	1.4					14.1	2.6	14.0	1.6					13.2	2.7	13.3	2.9	
	M	4	4:40	10:10	16:42	22:43		☾	Th	4	5:25	10:52	17:30	23:38		N	S	4	6:33	12:20	19:12	. . .	
			14.3	3.2	13.8	1.8					13.5	3.0	13.5	2.3					12.6	3.4	12.8	. . .	
E	Tu	5	5:25	10:50	17:25	23:29			F	5	6:17	11:47	18:30	. . .			M	5	1:04	7:51	13:40	20:32	
☾			13.8	3.5	13.3	2.2					13.0	3.4	13.0	. . .					3.7	12.7	3.7	13.1	
	W	6	6:14	11:37	18:17	. . .			S	6	0:33	7:20	12:54	19:47			Tu	6	2:22	9:05	15:00	21:46	
			13.3	4.0	12.9	. . .					3.0	12.7	3.8	12.9					3.9	13.5	3.2	14.0	
	Th	7	0:21	7:10	12:35	19:20			S	7	1:42	8:28	14:11	21:00			W	7	3:36	10:10	16:10	22:45	
			2.7	12.9	4.2	12.8					3.5	12.9	3.9	13.3					3.4	14.6	2.2	15.1	
	F	8	1:20	8:10	13:42	20:27		N	M	8	2:52	9:36	15:26	22:07			Th	8	4:40	11:08	17:08	23:40	
			3.1	12.9	4.3	13.1					3.5	13.7	3.2	14.2					2.5	16.0	0.9	16.2	
	S	9	2:25	9:11	14:52	21:32			Tu	9	4:00	10:35	16:32	23:07		P	F	9	5:33	11:58	17:59	. . .	
			3.2	13.3	4.0	13.7					3.1	14.7	2.2	15.1		●			1.4	17.1	—0.2	. . .	
	S	10	3:27	10:09	15:56	22:32			W	10	5:00	11:30	17:27	. . .		E	S	10	0:27	6:20	12:45	18:45	
			3.0	14.0	3.2	14.5					2.2	15.9	1.0	. . .					17.1	0.4	18.0	—1.2	
	M	11	4:26	11:01	16:54	23:27		●	Th	11	0:00	5:52	12:18	18:18			S	11	1:12	7:05	13:28	19:30	
			2.5	15.0	2.1	15.3					16.1	1.4	16.9	—0.2					17.8	—0.2	18.5	—1.5	
N	Tu	12	5:20	11:50	17:46	. . .		P	F	12	0:48	6:38	13:05	19:06			M	12	1:55	7:48	14:12	20:12	
			1.8	15.8	1.0	. . .					16.9	0.6	17.8	—1.0					18.0	—0.5	18.4	—1.5	
●	W	13	0:19	6:09	12:36	18:35			S	13	1:33	7:24	13:48	19:50			Tu	13	2:40	8:29	14:55	20:57	
			16.1	1.2	16.7	0.0					17.5	0.1	18.1	—1.4					17.8	—0.3	18.0	—1.0	
	Th	14	1:05	6:55	13:20	19:22		E	S	14	2:18	8:07	14:32	20:35			W	14	3:22	9:14	15:40	21:40	
			16.7	0.8	17.2	—0.6					17.6	—0.1	18.1	—1.4					17.2	0.2	17.1	—0.2	
P	F	15	1:50	7:39	14:05	20:07			M	15	3:02	8:50	15:17	21:19			Th	15	4:09	10:00	16:29	22:29	
			17.0	0.5	17.5	—1.0					17.5	0.0	17.7	—1.0					16.3	1.1	16.0	1.0	
	S	16	2:37	8:23	14:50	20:52			Tu	16	3:47	9:37	16:03	22:06		☽	F	16	5:00	10:50	17:25	23:20	
			17.0	0.5	17.3	—0.9					16.9	0.6	16.9	—0.2		S			15.2	2.1	14.9	2.2	
	S	17	3:22	9:10	15:37	21:40			W	17	4:35	10:23	16:54	22:55			S	17	5:57	11:46	18:27	. . .	
			16.8	0.7	17.0	—0.5					16.1	1.4	15.9	0.8					14.3	3.1	14.0	. . .	
E	M	18	4:10	9:57	16:25	22:29		☽	Th	18	5:28	11:17	17:49	23:50			S	18	0:21	7:02	12:54	19:35	
			16.3	1.2	16.3	0.1					15.2	2.4	14.9	1.9					3.3	13.6	3.9	13.5	
☽	Tu	19	5:02	10:46	17:19	23:20			F	19	6:27	12:15	18:54	. . .			M	19	1:31	8:09	14:05	20:42	
			15.6	2.0	15.5	0.9					14.4	3.3	14.1	. . .					4.1	13.3	4.3	13.4	
	W	20	5:57	11:42	18:17	. . .			S	20	0:52	7:35	13:27	20:02			Tu	20	2:46	9:12	15:17	21:44	
			14.9	2.7	14.8	. . .					2.9	13.8	4.0	13.7					4.3	13.5	3.9	13.8	
	Th	21	0:18	6:59	12:47	19:22		S	S	21	2:00	8:40	14:40	21:09			W	21	3:54	10:10	16:15	22:40	
			1.8	14.4	3.4	14.2					3.6	13.7	4.1	13.7					4.0	14.0	3.3	14.3	
	F	22	1:22	8:04	13:58	20:31			M	22	3:14	9:42	15:50	22:11			Th	22	4:49	11:00	17:03	23:27	
			2.6	14.2	3.8	14.0					3.7	13.9	3.7	14.1					3.5	14.6	2.4	15.0	
	S	23	2:30	9:07	15:10	21:33			Tu	23	4:19	10:40	16:47	23:05		A	F	23	5:32	11:42	17:45	. . .	
			3.0	14.2	3.7	14.2					3.4	14.5	3.0	14.7					2.9	15.3	1.7	. . .	
S	S	24	3:37	10:08	16:14	22:34			W	24	5:14	11:28	17:34	23:52		○	S	24	0:10	6:07	12:22	18:20	
			3.0	14.6	3.3	14.6					2.9	15.1	2.2	15.2		E			15.5	2.5	15.9	1.1	
	M	25	4:37	11:02	17:10	23:27			Th	25	5:58	12:11	18:14	. . .			S	25	0:48	6:40	12:57	18:53	
			2.7	15.1	2.6	15.1					2.5	15.7	1.5	. . .					15.9	2.1	16.2	0.6	
	Tu	26	5:31	11:51	17:57	. . .		○	F	26	0:37	6:37	12:52	18:50			M	26	1:22	7:07	13:30	19:25	
			2.3	15.7	1.9	. . .					15.7	2.1	16.1	1.0					16.0	1.7	16.2	0.4	
○	W	27	0:15	6:17	12:34	18:36		A	S	27	1:16	7:07	13:27	19:22			Tu	27	1:54	7:36	14:02	19:58	
			15.6	2.0	16.1	1.4					16.0	2.0	16.2	0.6					15.9	1.5	16.0	0.3	
	Th	28	0:59	6:57	13:16	19:13			S	28	1:52	7:37	14:00	19:55			W	28	2:25	8:05	14:34	20:30	
			16.0	1.8	16.3	1.0					16.0	1.9	16.2	0.4					15.5	1.3	15.8	0.5	
	F	29	1:39	7:31	13:52	19:48			M	29	2:25	8:02	14:30	20:27			Th	29	2:56	8:37	15:08	21:06	
			16.1	1.8	16.3	0.7					15.8	1.8	15.8	0.3					15.2	1.2	15.4	0.8	
A	S	30	2:17	8:04	14:26	20:21			Tu	30	2:56	8:30	14:59	21:00			F	30	3:30	9:16	15:50	21:46	
			16.0	2.0	16.0	0.6					15.4	1.7	15.5	0.5					14.7	1.3	14.9	1.4	
	S	31	2:52	8:32	15:00	20:55			W	31	3:27	9:00	15:32	21:34									
			15.6	2.1	15.6	0.6					14.9	1.7	15.1	0.8									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (–) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							NOVEMBER.							DECEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	4:09 14.2	10:00 1.6	16:36 14.2	22:30 2.2		Tu	1	5:42 13.3	11:45 2.4	18:35 13.4	. . . . . .		Th	1	6:32 13.8	12:36 2.2	19:22 13.9	. . . . . .
N ☾	S	2	4:58 13.5	10:54 2.3	17:38 13.5	23:25 3.0		W	2	0:14 3.8	6:57 13.2	12:57 2.8	19:47 13.5	E	F	2	1:05 3.7	7:41 14.0	13:44 2.4	20:28 14.2
	M	3	6:02 12.9	11:59 2.9	18:53 13.1	. . . . . .		Th	3	1:30 4.0	8:11 13.7	14:11 2.7	20:57 14.1	P	S	3	2:17 3.6	8:51 14.5	14:51 2.3	21:30 14.8
	Tu	4	0:35 3.9	7:21 12.8	13:17 3.3	20:10 13.2	E	F	4	2:46 3.7	9:19 14.6	15:20 2.1	21:58 15.0		S	4	3:26 3.1	9:53 15.1	15:53 1.8	22:27 15.5
	W	5	1:56 4.1	8:38 13.5	14:36 3.0	21:23 14.0	P	S	5	3:52 2.8	10:20 15.6	16:20 1.3	22:57 16.0		M	5	4:26 2.3	10:50 15.8	16:49 1.3	23:19 16.3
	Th	6	3:12 3.6	9:47 14.6	15:45 2.1	22:22 15.1		S	6	4:50 1.8	11:12 16.5	17:12 0.5	23:40 16.8		Tu	6	5:20 1.5	11:42 16.4	17:40 0.8	. . . . . .
	F	7	4:17 2.6	10:44 15.9	16:45 1.0	23:15 16.2	●	M	7	5:39 0.9	12:01 17.2	18:00 —0.1	. . . . . .	●	W	7	0:06 16.9	6:08 0.9	12:30 16.8	18:27 0.5
P E	S	8	5:13 1.4	11:36 17.0	17:37 —0.1	. . . . . .		Tu	8	0:27 17.5	6:25 0.2	12:48 17.6	18:45 —0.5	S	Th	8	0:53 17.2	6:52 0.5	13:15 17.0	19:12 0.5
●	S	9	0:05 17.1	6:00 0.5	12:22 17.8	18:23 —1.2		W	9	1:12 17.7	7:10 —0.1	13:32 17.6	19:29 —0.4		F	9	1:37 17.2	7:35 0.3	14:00 16.9	19:52 0.7
	M	10	0:50 17.8	6:40 —0.2	13:08 18.3	19:07 —1.2		Th	10	1:55 17.6	7:51 —0.1	14:18 17.3	20:12 0.0		S	10	2:20 16.9	8:16 0.4	14:44 16.5	20:35 1.2
	Tu	11	1:33 18.0	7:27 —0.5	13:52 18.3	19:50 —1.1	S	F	11	2:37 17.1	8:34 0.3	15:02 16.7	20:55 0.7		S	11	3:00 16.3	8:57 0.7	15:27 15.9	21:15 1.9
	W	12	2:16 17.8	8:10 —0.8	14:35 17.8	20:33 —0.7		S	12	3:21 16.2	9:17 0.8	15:48 15.9	21:39 1.6		M	12	3:41 15.5	9:38 1.2	16:11 15.2	21:57 2.6
	Th	13	3:00 17.2	8:52 0.1	15:20 16.9	21:17 0.2		S	13	4:07 15.3	10:00 1.6	16:36 15.0	22:25 2.7		Tu	13	4:25 14.7	10:21 1.7	17:00 14.4	22:40 3.4
S	F	14	3:45 16.4	9:36 0.9	16:08 15.9	22:02 1.3		M	14	4:57 14.4	10:50 2.3	17:30 14.2	23:17 3.6	☽	W	14	5:10 13.9	11:07 2.3	17:50 13.8	23:25 4.0
	S	15	4:33 15.3	10:25 1.9	17:00 14.9	22:52 2.5	☽	Tu	15	5:51 13.6	11:44 3.0	18:30 13.6	. . . . . .	A E	Th	15	6:00 13.3	11:57 2.8	18:45 13.3	. . . . . .
☽	S	16	5:26 14.2	11:18 2.8	18:00 14.0	23:50 3.5		W	16	0:15 4.4	6:50 13.1	12:42 3.5	19:31 13.3		F	16	0:17 4.6	6:55 12.9	12:52 3.2	19:42 13.0
	M	17	6:28 13.5	12:18 3.6	19:05 13.5	. . . . . .	A	Th	17	1:20 4.9	7:50 13.0	13:44 3.7	20:30 13.3		S	17	1:17 4.9	7:52 12.9	13:50 3.3	20:40 13.1
	Tu	18	0:56 4.3	7:32 13.1	13:27 4.0	20:10 13.4	E	F	18	2:24 4.9	8:47 13.3	14:43 3.5	21:26 13.6		S	18	2:18 4.8	8:53 13.2	14:49 3.3	21:35 13.5
	W	19	2:10 4.7	8:32 13.2	14:34 3.9	21:10 13.5		S	19	3:21 4.6	9:42 13.7	15:37 3.0	22:17 14.1		M	19	3:17 4.4	9:50 13.7	15:45 3.0	22:25 14.0
A	Th	20	3:17 4.5	9:32 13.6	15:33 3.4	22:06 14.0		S	20	4:10 4.0	10:30 14.3	16:27 2.5	23:01 14.7		Tu	20	4:11 3.7	10:43 14.4	16:37 2.5	23:12 14.7
	F	21	4:12 4.0	10:21 14.2	16:24 2.7	22:55 14.6		M	21	4:53 3.3	11:16 14.9	17:11 1.9	23:44 15.2		W	21	5:00 2.7	11:32 15.0	17:24 1.9	23:56 15.4
E	S	22	4:57 3.4	11:10 14.8	17:08 2.0	23:36 15.2		Tu	22	5:32 2.5	12:00 15.5	17:53 1.4	. . . . . .	○	Th	22	5:47 1.7	12:18 15.7	18:09 1.5	. . . . . .
	S	23	5:32 2.9	11:50 15.4	17:47 1.4	. . . . . .	○	W	23	0:24 15.6	6:10 1.7	12:40 15.8	18:32 1.0	N	F	23	0:37 15.9	6:30 0.9	13:02 16.0	18:51 1.1
○	M	24	0:17 15.6	6:07 2.3	12:28 15.8	18:22 0.9		Th	24	1:00 15.8	6:48 1.1	13:18 16.0	19:10 0.9		S	24	1:18 16.4	7:15 0.2	13:45 16.3	19:32 1.0
	Tu	25	0:52 15.8	6:37 1.7	13:03 16.0	18:57 0.6	N	F	25	1:37 15.9	7:27 0.6	13:59 16.0	19:47 1.0		S	25	2:00 16.4	7:59 —0.2	14:29 16.3	20:14 1.0
	W	26	1:25 15.8	7:09 1.3	13:39 16.1	19:32 0.6		S	26	2:14 15.8	8:07 0.3	14:41 15.8	20:26 1.2		M	26	2:41 16.4	8:42 —0.3	15:15 16.0	20:57 1.3
	Th	27	1:59 15.7	7:43 0.9	14:15 15.9	20:06 0.7		S	27	2:52 15.5	8:51 0.4	15:27 15.4	21:08 1.6	P	Tu	27	3:26 16.0	9:30 —0.1	16:02 15.6	21:42 1.7
	F	28	2:31 15.3	8:20 0.8	14:53 15.6	20:43 1.1		M	28	3:37 15.0	9:39 0.7	16:16 14.9	21:55 2.2		W	28	4:14 15.5	10:18 0.4	16:53 15.1	22:34 2.3
N	S	29	3:07 15.0	9:00 0.9	15:35 15.1	21:24 1.6		Tu	29	4:27 14.5	10:31 1.2	17:13 14.4	22:50 2.8	E ☾	Th	29	5:07 15.0	11:12 1.0	17:50 14.6	23:30 2.9
	S	30	3:48 14.4	9:48 1.2	16:26 14.4	22:10 2.3	☾	W	30	5:25 14.0	11:30 1.7	18:15 14.0	23:52 3.4		F	30	6:08 14.5	12:12 1.7	18:52 14.3	. . . . . .
☾	M	31	4:39 13.8	10:42 1.8	17:25 13.8	23:05 3.1									S	31	0:36 3.4	7:14 14.3	13:16 2.3	20:00 14.2

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 8.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	6:36	12:02	19:02	. . .	○	M	1	0:56	7:58	13:24	20:25	P	Tu	1	0:35	7:37	13:53	20:05
			2.6	19.5	1.8	. . .				20.9	0.4	21.0	0.7				20.7	0.3	20.7	0.7
N	S	2	0:27	7:27	12:51	19:53	P	Tu	2	1:50	8:50	14:15	21:16	○	W	2	1:30	8:31	13:57	20:57
			20.3	1.4	20.4	1.1				21.6	—0.4	21.6	0.4				21.6	—0.7	21.6	0.0
○	S	3	1:17	8:19	13:43	20:44		W	3	2:40	9:41	15:05	22:05	E	Th	3	2:21	9:22	14:47	21:46
			20.9	0.6	21.1	0.8				22.1	—0.8	21.9	0.2				22.2	—1.2	22.1	—0.2
P	M	4	2:10	9:09	14:36	21:34	E	Th	4	3:27	10:28	15:53	22:52		F	4	3:08	10:08	15:34	22:31
			21.5	0.1	21.5	0.7				22.3	—0.9	21.9	0.4				22.5	—1.3	22.1	—0.1
	Tu	5	2:57	9:58	15:22	22:22		F	5	4:15	11:16	16:40	23:40		S	5	3:54	10:55	16:19	23:17
			21.8	—0.2	21.6	0.8				22.2	—0.7	21.6	0.9				22.4	—0.9	21.8	0.4
	W	6	3:45	10:44	16:09	23:10		S	6	5:02	12:02	17:28	. . .		S	6	4:40	11:41	17:05	. . .
			21.9	—0.1	21.4	1.1				21.8	—0.1	21.0	. . .				22.0	—0.2	21.2	. . .
	Th	7	4:31	11:32	16:58	23:58		S	7	0:28	5:51	12:53	18:19		M	7	0:04	5:28	12:28	17:53
			21.7	0.1	21.1	1.6				1.5	21.0	0.8	20.1				1.2	21.1	0.8	20.2
E	F	8	5:20	12:22	17:48	. . .	☾	M	8	1:20	6:44	13:47	19:13		Tu	8	0:53	6:18	13:19	18:44
			21.2	0.6	20.5	. . .				2.4	20.1	1.7	19.2				2.1	20.1	1.9	19.2
☾	S	9	0:49	6:12	13:15	18:42		Tu	9	2:14	7:38	14:45	20:12	☾	W	9	1:45	7:10	14:15	19:40
			2.2	20.5	1.2	19.8				3.2	19.1	2.5	18.3				3.0	19.0	2.9	18.2
	S	10	1:43	7:07	14:11	19:40		W	10	3:13	8:40	15:48	21:18	S	Th	10	2:41	8:10	15:17	20:42
			2.8	19.8	1.8	19.2				3.6	18.1	3.1	17.7				3.6	18.0	3.6	17.4
	M	11	2:41	8:05	15:12	20:42	S	Th	11	4:19	9:47	16:54	22:23		F	11	3:45	9:15	16:22	21:48
			3.3	19.0	2.3	18.5				3.7	17.6	3.2	17.4				3.9	17.3	3.8	17.1
	Tu	12	3:43	9:08	16:17	21:47		F	12	5:24	10:52	17:58	23:24		S	12	4:51	10:22	17:25	22:51
			3.5	18.3	2.6	18.0				3.4	17.4	3.0	17.5				3.6	17.1	3.7	17.1
	W	13	4:49	10:15	17:22	22:51		S	13	6:25	11:52	18:54	. . .		S	13	5:53	11:22	18:24	23:48
			3.4	18.0	2.5	18.0				2.9	17.6	2.7	. . .				3.1	17.2	3.3	17.5
	Th	14	5:52	11:18	18:22	23:50		S	14	0:18	7:18	12:44	19:45	A	M	14	6:47	12:15	19:15	. . .
			3.0	17.9	2.3	18.1				17.9	2.3	17.9	2.4				2.5	17.8	2.8	. . .
S	F	15	6:50	12:15	19:17	. . .		M	15	1:08	8:08	13:32	20:30		Tu	15	0:37	7:36	13:02	20:00
			2.5	18.2	2.1	. . .				18.3	1.8	18.3	2.4				18.1	1.9	18.3	2.5
	S	16	0:42	7:42	13:08	20:07	A	Tu	16	1:50	8:50	14:12	21:07		W	16	1:20	8:19	13:43	20:36
			18.4	2.0	18.4	2.0	●			18.7	1.6	18.6	2.5				18.7	1.6	18.8	2.4
●	S	17	1:31	8:31	13:56	20:53		W	17	2:25	9:24	14:45	21:38	●	Th	17	1:58	8:55	14:16	21:08
			18.7	1.7	18.6	2.1				19.1	1.6	19.0	2.7	E			19.3	1.4	19.2	2.4
	M	18	2:14	9:14	14:35	21:30		Th	18	2:56	9:56	15:17	22:09		F	18	2:29	9:27	14:48	21:40
			18.9	1.7	18.7	2.4				19.5	1.7	19.2	2.9				19.8	1.5	19.6	2.5
A	Tu	19	2:50	9:48	15:11	22:04	E	F	19	3:27	10:27	15:48	22:40		S	19	3:00	9:58	15:20	22:12
			19.1	1.8	18.9	2.8				19.9	1.8	19.5	3.0				20.2	1.6	19.9	2.5
	W	20	3:22	10:22	15:44	22:36		S	20	3:58	10:59	16:20	23:13		S	20	3:32	10:32	15:52	22:46
			19.3	2.0	19.0	3.2				20.2	1.9	19.8	3.0				20.6	1.7	20.2	2.4
	Th	21	3:55	10:55	16:17	23:10		S	21	4:33	11:34	16:57	23:51		M	21	4:08	11:08	16:29	23:24
			19.5	2.1	19.2	3.4				20.4	1.9	20.0	2.9				20.7	1.8	20.4	2.4
	F	22	4:31	11:32	16:56	23:53		M	22	5:12	12:12	17:36	. . .		Tu	22	4:46	11:48	17:10	. . .
			19.7	2.2	19.4	3.5				20.4	2.1	19.9	. . .				20.7	2.1	20.2	. . .
E	S	23	5:18	12:18	17:38	. . .		Tu	23	0:34	5:57	12:58	18:22		W	23	0:07	5:31	12:31	17:55
			19.8	2.3	19.3	. . .				3.0	20.2	2.4	19.7				2.5	20.4	2.5	19.9
	S	24	0:39	6:04	13:05	18:29	☽	W	24	1:21	6:45	13:49	19:15	N	Th	24	0:55	6:20	13:23	18:47
			3.5	19.8	2.3	19.4				3.2	19.8	2.9	19.4	☽			2.8	19.9	3.1	19.4
☽	M	25	1:28	6:53	13:54	19:18		Th	25	2:15	7:42	14:48	20:15		F	25	1:49	7:17	14:22	19:47
			3.5	19.7	2.6	19.3				3.5	19.4	3.4	19.1				3.2	19.3	3.7	19.0
	Tu	26	2:17	7:42	14:44	20:08	N	F	26	3:18	8:47	15:53	21:21		S	26	2:50	8:22	15:27	20:55
			3.7	19.5	2.9	19.1				3.6	19.1	3.5	19.0				3.5	18.9	4.0	18.8
	W	27	3:08	8:32	15:34	20:58		S	27	4:26	9:57	17:02	22:31		S	27	4:00	9:34	16:38	22:05
			3.8	19.3	3.1	19.0				3.3	19.0	3.2	19.2				3.3	18.8	3.6	18.9
	Th	28	4:00	9:25	16:28	21:55		S	28	5:35	11:06	18:08	23:36		M	28	5:13	10:44	17:46	23:13
			3.7	19.2	3.1	19.2				2.5	19.4	2.5	19.9				2.5	19.2	2.8	19.6
N	F	29	4:58	10:25	17:31	22:59		M	29	6:39	12:09	19:09	. . .	P	Tu	29	6:18	11:49	18:48	. . .
			3.2	19.3	2.7	19.5				1.4	20.2	1.5	. . .				1.4	19.9	1.7	. . .
	S	30	6:02	11:30	18:33	. . .								E	W	30	0:14	7:17	12:45	19:45
			2.4	19.7	2.1	. . .											20.5	0.2	20.8	0.7
	S	31	0:00	7:02	12:29	19:30								○	Th	31	1:10	8:10	13:37	20:36
			20.2	1.4	20.4	1.4											21.4	—0.7	21.5	0.0

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| APRIL. | | |

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:57	10:51	16:10	23:11		E	M	1	4:40	11:32	16:51	23:52			Th	1	5:20	12:15	17:37	. . .	
			19.2	2.5	19.5	1.7					19.2	3.2	19.8	2.1					19.7	3.0	20.1	. . .	
	S	2	4:35	11:29	16:48	23:47			Tu	2	5:16	12:09	17:29	. . .			F	2	0:38	6:01	13:00	18:25	
			19.1	3.1	19.4	2.1					19.3	3.4	19.8	. . .					2.5	19.6	3.2	19.8	
A	S	3	5:11	12:07	17:25	. . .			W	3	0:30	5:54	12:50	18:11		☾	S	3	1:25	6:50	13:50	19:15	
			18.9	3.5	19.3	. . .					2.4	19.3	3.6	19.7					3.0	19.3	3.5	19.4	
	M	4	0:26	5:50	12:48	18:07		☾	Th	4	1:13	6:38	13:37	19:00		N	S	4	2:20	7:46	14:48	20:17	
			2.4	18.8	3.9	19.1					2.7	19.2	3.7	19.4					3.5	19.0	3.7	19.0	
E	Tu	5	1:09	6:34	13:32	18:53			F	5	2:02	7:28	14:27	19:52			M	5	3:28	8:50	15:54	21:25	
☾			2.7	18.7	4.1	19.0					3.0	19.0	3.9	19.1					3.7	18.8	3.5	18.8	
	W	6	1:55	7:22	14:21	19:44			S	6	2:57	8:25	15:26	20:51			Tu	6	4:30	10:00	17:04	22:35	
			3.0	18.5	4.3	18.8					3.3	18.8	3.9	18.9					3.5	18.9	2.8	19.1	
	Th	7	2:46	8:14	15:14	20:39			S	7	3:58	9:26	16:27	21:57			W	7	5:38	11:06	18:10	23:40	
			3.2	18.4	4.3	18.7					3.4	18.7	3.6	18.9					2.9	19.5	1.7	19.7	
	F	8	3:41	9:11	16:11	21:36		N	M	8	5:02	10:30	17:33	23:02			Th	8	6:41	12:07	19:10	. . .	
			3.2	18.4	4.0	18.7					3.1	19.1	2.8	19.2					1.9	20.3	0.6	. . .	
	S	9	4:40	10:10	17:10	22:35			Tu	9	6:05	11:33	18:35	. . .		P	F	9	0:38	7:37	13:04	20:04	
			3.0	18.6	3.5	18.9					2.5	19.6	1.8	. . .		●			20.6	0.9	21.3	—0.5	
	S	10	5:38	11:06	18:06	23:33			W	10	0:04	7:04	12:30	19:32		E	S	10	1:30	8:30	13:56	20:56	
			2.7	19.1	2.7	19.4					19.8	1.7	20.4	0.8					21.4	0.1	22.0	—1.2	
	M	11	6:35	12:02	19:02	. . .		●	Th	11	0:59	7:59	13:25	20:25			S	11	2:21	9:20	14:44	21:44	
			2.1	19.7	1.8	. . .					20.6	1.0	21.2	—0.1					22.0	—0.4	22.5	—1.4	
N	Tu	12	0:28	7:29	12:55	19:55		P	F	12	1:52	8:51	14:16	21:16			M	12	3:09	10:07	15:30	22:30	
			19.9	1.6	20.4	1.1					21.2	0.4	21.9	—0.8					22.2	—0.4	22.6	—1.2	
●	W	13	1:20	8:21	13:46	20:46			S	13	2:41	9:40	15:04	22:04			Tu	13	3:55	10:52	16:15	23:16	
			20.5	1.1	21.0	0.4					21.7	0.1	22.3	—1.0					22.0	—0.1	22.3	—0.7	
	Th	14	2:11	9:11	14:34	21:34		E	S	14	3:29	10:26	15:49	22:49			W	14	4:40	11:39	17:04	. . .	
			21.0	0.9	21.5	0.0					21.9	0.2	22.4	—0.9					21.5	0.6	21.6	. . .	
P	F	15	2:59	9:58	15:20	22:20			M	15	4:15	11:13	16:36	23:36			Th	15	0:04	5:28	12:28	17:53	
			21.3	0.8	21.7	—0.2					21.7	0.4	22.1	—0.5					0.3	20.7	1.4	20.5	
	S	16	3:45	10:44	16:05	23:07			Tu	16	5:01	12:00	17:24	. . .		☽	F	16	0:54	6:18	13:18	18:45	
			21.4	0.9	21.8	—0.1					21.3	1.0	21.5	. . .					1.4	19.6	2.4	19.4	
	S	17	4:31	11:31	16:54	23:55			W	17	0:25	5:50	12:50	18:15		S	S	17	1:48	7:13	14:14	19:44	
			21.2	1.3	21.5	0.2					0.3	20.6	1.8	20.5					2.5	18.6	3.1	18.3	
E	M	18	5:20	12:20	17:43	. . .		☽	Th	18	1:18	6:42	13:42	19:08			S	18	2:49	8:15	15:18	20:49	
			20.8	1.8	21.0	. . .					1.3	19.6	2.6	19.5					3.3	17.7	3.5	17.5	
☽	Tu	19	0:44	6:11	13:12	18:35			F	19	2:14	7:40	14:41	20:08			M	19	3:55	9:21	16:25	21:58	
			0.8	20.2	2.4	20.2					2.2	18.7	3.3	18.4					3.6	17.1	3.4	17.2	
	W	20	1:38	7:06	14:06	19:31			S	20	3:15	8:45	15:46	21:15			Tu	20	5:01	10:28	17:31	23:01	
			1.5	19.5	3.0	19.4					2.9	17.8	3.5	17.6					3.5	17.1	2.9	17.3	
	Th	21	2:38	8:06	15:07	20:32		S	S	21	4:24	9:51	16:55	22:25			W	21	6:02	11:28	18:28	23:58	
			2.1	18.7	3.4	18.6					3.2	17.4	3.4	17.3					3.1	17.4	2.3	17.7	
	F	22	3:41	9:11	16:12	21:40			M	22	5:29	10:57	18:00	23:28			Th	22	6:58	12:21	19:20	. . .	
			2.5	18.1	3.4	18.0					3.1	17.4	2.8	17.5					2.6	17.9	1.7	. . .	
	S	23	4:47	10:18	17:19	22:47			Tu	23	6:30	11:56	18:58	. . .		A	F	23	0:45	7:45	13:06	20:05	
			2.6	17.8	3.1	17.8					2.6	17.7	2.1	. . .					18.2	2.2	18.5	1.3	
S	S	24	5:52	11:21	18:22	23:50			W	24	0:25	7:25	12:50	19:49		☽	S	24	1:30	8:25	13:45	20:42	
			2.5	17.9	2.5	18.0					17.9	2.3	18.2	1.6		E			18.6	2.1	19.0	1.2	
	M	25	6:51	12:18	19:19	. . .			Th	25	1:15	8:14	13:36	20:35			S	25	2:05	8:58	14:17	21:15	
			2.1	18.2	1.9	. . .					18.3	2.0	18.6	1.2					19.0	2.1	19.4	1.3	
	Tu	26	0:45	7:45	13:10	20:09		○	F	26	2:00	8:54	14:14	21:12			M	26	2:37	9:28	14:48	21:46	
			18.3	1.8	18.6	1.4					18.6	2.0	19.0	1.1					19.3	2.3	19.8	1.5	
○	W	27	1:35	8:34	13:58	20:57		A	S	27	2:35	9:28	14:46	21:45			Tu	27	3:07	10:00	15:20	22:18	
			18.6	1.7	18.9	1.2					18.9	2.2	19.4	1.3					19.5	2.5	20.1	1.8	
	Th	28	2:21	9:17	14:37	21:37		E	S	28	3:06	9:58	15:17	22:16			W	28	3:38	10:31	15:53	22:52	
			18.8	1.8	19.2	1.2					19.1	2.5	19.7	1.5					19.8	2.5	20.4	2.0	
	F	29	3:00	9:53	15:13	22:11			M	29	3:38	10:29	15:47	22:48			Th	29	4:12	11:07	16:29	23:29	
			19.0	2.2	19.4	1.3					19.3	2.8	20.0	1.7					20.0	2.5	20.4	2.3	
A	S	30	3:34	10:25	15:45	22:45			Tu	30	4:08	11:00	16:20	23:20			F	30	4:50	11:47	17:11	. . .	
			19.0	2.6	19.5	1.6					19.6	2.9	20.2	2.0					20.0	2.6	20.3	. . .	
	S	31	4:07	10:59	16:17	23:18			W	31	4:41	11:34	16:56	23:56									
			19.1	3.0	19.7	1.9					19.7	2.8	20.3	2.2									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	0:10	5:34	12:32	17:57		Tu	1	1:31	6:55	13:58	19:30		Th	1	2:12	7:37	14:44	20:17
			2.6	19.9	2.8	19.9				3.6	19.3	2.9	19.1				3.7	19.3	2.5	18.9
N ☾	S	2	0:57	6:21	13:21	18:49		W	2	2:32	7:57	15:04	20:37	E	F	2	3:16	8:42	15:50	21:22
			3.1	19.5	3.1	19.4				3.9	19.0	2.9	18.8				3.7	19.1	2.4	18.8
	M	3	1:52	7:17	14:20	19:50		Th	3	3:40	9:05	16:14	21:46	P	S	3	4:23	9:49	16:55	22:27
			3.6	19.1	3.3	19.0				3.8	18.9	2.5	18.9				3.3	19.0	1.9	19.1
	Tu	4	2:55	8:24	15:26	21:00	E	F	4	4:48	10:14	17:20	22:52		S	4	5:28	10:54	17:58	23:29
			3.9	18.8	3.3	18.8				3.2	19.3	1.7	19.4				2.6	19.3	1.3	19.5
	W	5	4:04	9:30	16:38	22:10	P	S	5	5:52	11:18	18:22	23:51		M	5	6:29	11:55	18:57	. . .
			3.8	18.9	2.7	19.0				2.2	19.9	0.8	20.2				1.8	19.7	0.8	. . .
	Th	6	5:12	10:39	17:45	23:16		S	6	6:52	12:18	19:18	. . .		Tu	6	0:25	7:25	12:51	19:51
			3.1	19.4	1.7	19.6				1.2	20.6	—0.1	. . .				20.0	1.1	20.1	0.4
	F	7	6:17	11:43	18:46	. . .	●	M	7	0:46	7:46	13:11	20:11	●	W	7	1:18	8:18	13:44	20:44
			2.0	20.2	0.5	. . .				20.8	0.4	21.2	—0.5				20.4	0.5	20.4	0.3
P E	S	8	0:15	7:15	12:41	19:42		Tu	8	1:36	8:37	14:02	21:02	S	Th	8	2:08	9:09	14:34	21:33
			20.5	1.0	21.1	—0.5				21.3	0.0	21.5	—0.7				20.5	0.3	20.5	0.5
●	S	9	1:09	8:09	13:34	20:34		W	9	2:28	9:27	14:51	21:50		F	9	2:55	9:55	15:20	22:17
			21.3	0.1	21.9	—1.1				21.5	—0.2	21.5	—0.4				20.5	0.4	20.3	1.0
	M	10	1:59	8:58	14:24	21:23		Th	10	3:14	10:12	15:37	22:37		S	10	3:39	10:38	16:03	23:00
			21.9	—0.4	22.3	—1.3				21.3	0.1	21.2	0.3				20.4	0.7	20.0	1.6
	Tu	11	2:48	9:46	15:10	22:10	S	F	11	3:59	10:58	16:22	23:22		S	11	4:20	11:21	16:45	23:44
			22.1	—0.5	22.3	—1.0				20.9	0.6	20.7	1.2				20.0	1.1	19.7	2.3
	W	12	3:34	10:32	15:57	22:57		S	12	4:44	11:45	17:09	. . .		M	12	5:04	12:04	17:28	. . .
			21.9	—0.2	21.9	—0.3				20.3	1.2	19.9	. . .				19.6	1.6	19.2	. . .
	Th	13	4:20	11:18	16:43	23:43		S	13	0:09	5:30	12:30	17:55		Tu	13	0:28	5:48	12:48	18:14
			21.3	0.5	21.2	0.6				2.1	19.6	1.9	19.2				3.1	19.2	2.2	18.6
S	F	14	5:07	12:06	17:30	. . .		M	14	0:56	6:20	13:20	18:48	☽	W	14	1:14	6:35	13:35	19:02
			20.5	1.3	20.3	. . .				3.0	18.8	2.5	18.4				3.7	18.7	2.6	18.2
	S	15	0:31	5:56	12:56	18:20	☽	Tu	15	1:48	7:12	14:13	19:42	A E	Th	15	2:03	7:24	14:25	19:53
			1.7	19.6	2.1	19.3				3.7	18.2	3.0	17.8				4.1	18.3	3.0	17.9
☽	S	16	1:21	6:48	13:47	19:17		W	16	2:44	8:08	15:10	20:40		F	16	2:53	8:16	15:18	20:47
			2.8	18.6	2.9	18.3				4.1	17.7	3.1	17.4				4.4	18.1	3.1	17.7
	M	17	2:20	7:44	14:47	20:18	A	Th	17	3:42	9:07	16:08	21:38		S	17	3:47	9:12	16:12	21:42
			3.5	17.8	3.3	17.6				4.2	17.5	3.0	17.4				4.4	18.0	3.1	17.8
	Tu	18	3:21	8:46	15:50	21:23	E	F	18	4:40	10:05	17:05	22:34		S	18	4:42	10:07	17:08	22:36
			4.0	17.2	3.3	17.2				4.0	17.5	2.7	17.7				4.1	18.0	2.9	18.1
	W	19	4:26	9:50	16:53	22:25		S	19	5:34	10:58	17:58	23:25		M	19	5:36	11:01	18:01	23:28
			3.9	17.1	3.0	17.2				3.6	17.9	2.3	18.1				3.6	18.4	2.6	18.6
A	Th	20	5:27	10:51	17:51	23:20		S	20	6:24	11:48	18:46	. . .		Tu	20	6:27	11:53	18:53	. . .
			3.6	17.3	2.5	17.6				3.1	18.4	2.0	. . .				3.0	18.8	2.3	. . .
	F	21	6:20	11:45	18:43	. . .		M	21	0:12	7:10	12:34	19:32		W	21	0:18	7:18	12:43	19:43
			3.0	17.8	1.9	. . .				18.6	2.6	18.9	1.8				19.1	2.4	19.3	1.9
E	S	22	0:08	7:08	12:30	19:29		Tu	22	0:57	7:53	13:15	20:13	○	Th	22	1:06	8:05	13:29	20:27
			18.1	2.6	18.4	1.5				19.1	2.3	19.4	1.6				19.7	1.8	19.8	1.7
	S	23	0:55	7:50	13:10	20:09	○	W	23	1:35	8:32	13:54	20:51	N	F	23	1:50	8:48	14:13	21:09
			18.6	2.3	19.0	1.4				19.6	2.0	19.8	1.7				20.2	1.3	20.3	1.6
○	M	24	1:32	8:25	13:46	20:45		Th	24	2:14	9:09	14:32	21:30		S	24	2:31	9:31	14:56	21:52
			19.1	2.2	19.4	1.4				20.0	1.8	20.2	1.8				20.7	1.0	20.6	1.6
	Tu	25	2:06	8:59	14:20	21:18	N	F	25	2:50	9:48	15:12	22:08		S	25	3:13	10:13	15:38	22:35
			19.5	2.2	19.9	1.6				20.3	1.7	20.4	2.0				21.0	0.8	20.7	1.7
	W	26	2:39	9:33	14:54	21:53		S	26	3:30	10:28	15:53	22:50		M	26	3:56	10:57	16:21	23:20
			19.8	2.2	20.1	1.8				20.6	1.6	20.5	2.3				21.1	0.8	20.7	2.0
	Th	27	3:13	10:08	15:30	22:28		S	27	4:10	11:11	16:35	23:34	P	Tu	27	4:41	11:42	17:09	. . .
			20.1	2.1	20.4	2.1				20.6	1.7	20.3	2.6				21.0	1.0	20.4	. . .
	F	28	3:48	10:46	16:10	23:07		M	28	4:55	11:55	17:21	. . .		W	28	0:08	5:30	12:32	17:58
			20.2	2.1	20.4	2.4				20.4	1.8	20.1	. . .				2.4	20.7	1.3	20.1
N	S	29	4:27	11:26	16:50	23:50		Tu	29	0:20	5:45	12:45	18:14	E ☾	Th	29	0:58	6:22	13:25	18:54
			20.3	2.2	20.3	2.7				3.0	20.1	2.1	19.7				2.8	20.2	1.7	19.6
	S	30	5:11	12:11	17:36	. . .	☾	W	30	1:13	6:38	13:41	19:13		F	30	1:54	7:18	14:23	19:54
			20.1	2.4	19.9	. . .				3.4	19.6	2.4	19.2				3.2	19.6	2.1	19.1
☾	M	31	0:35	6:00	13:00	18:30									S	31	2:54	8:18	15:26	20:58
			3.2	19.7	2.7	19.5											3.5	19.1	2.4	18.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 10.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N. S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	8:37 2.9	9:34 18.9	16:11 2.8	22:00 19.3
N	S	2	4:41 2.1	10:24 19.8	17:10 1.5	22:47 20.1
○	S	3	5:37 1.3	11:10 20.4	18:03 1.0	23:34 20.7
P	M	4	6:27 0.8	11:56 20.8	18:53 0.2	. . . . . .
	Tu	5	0:17 21.1	7:15 0.5	12:40 20.9	19:40 0.6
	W	6	1:02 21.1	8:02 0.5	13:25 20.7	20:23 1.0
	Th	7	1:48 20.7	8:48 0.7	14:11 20.1	21:10 1.3
E	F	8	2:35 20.0	9:35 1.1	15:00 19.2	21:56 2.0
☾	S	9	3:24 19.2	10:23 1.8	15:53 18.2	22:57 2.7
	S	10	4:22 18.0	11:16 2.5	16:54 17.0	23:45 3.4
	M	11	5:25 16.9	12:16 3.2	18:02 16.1	. . . . . .
	Tu	12	0:44 4.0	6:35 16.2	13:22 3.7	19:16 15.7
	W	13	1:57 4.2	7:48 16.1	14:37 3.7	20:25 15.9
	Th	14	3:11 3.9	8:53 16.4	15:47 3.2	21:26 16.4
S	F	15	4:19 3.1	9:49 16.8	16:47 2.5	22:14 16.8
	S	16	5:15 2.4	10:34 17.1	17:39 2.0	22:53 17.2
●	S	17	6:03 1.9	11:12 17.3	18:25 1.8	23:29 17.4
	M	18	6:43 2.0	11:44 17.5	19:02 2.1	. . . . . .
A	Tu	19	0:00 17.8	7:20 2.2	12:14 17.8	19:32 2.7
	W	20	0:29 18.3	7:46 2.8	12:43 18.3	19:57 3.3
	Th	21	1:00 18.7	8:09 3.2	13:16 18.6	20:17 3.6
	F	22	1:34 19.0	8:32 3.3	13:52 18.9	20:42 3.7
E	S	23	2:12 19.2	9:00 3.2	14:33 18.9	21:12 3.5
	S	24	2:57 19.0	9:39 3.1	15:20 18.5	21:54 3.6
☽	M	25	3:46 18.6	10:25 3.2	16:12 17.9	22:40 3.6
	Tu	26	4:40 17.9	11:15 3.3	17:12 17.2	23:37 3.7
	W	27	5:44 17.2	12:12 3.5	18:20 16.8	. . . . . .
	Th	28	0:38 3.8	6:55 17.0	13:16 3.6	19:31 16.9
N	F	29	1:48 3.8	8:07 17.4	14:30 3.4	20:40 17.6
	S	30	3:06 3.3	9:10 18.3	15:46 2.8	21:38 18.7
	S	31	4:18 2.5	10:05 19.2	16:52 1.9	22:31 19.6

FEBRUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	5:20 1.4	10:55 20.0	17:49 1.0	23:20 20.5
P	Tu	2	6:15 0.5	11:42 20.6	18:38 0.3	. . . . . .
	W	3	0:04 21.0	7:03 —0.1	12:26 20.9	19:25 0.1
E	Th	4	0:47 21.3	7:50 —0.3	13:10 20.9	20:10 0.1
	F	5	1:30 21.1	8:32 0.0	13:52 20.5	20:52 0.6
	S	6	2:14 20.6	9:14 0.6	14:37 19.9	21:34 1.5
	S	7	3:00 19.7	9:58 1.5	15:25 18.7	22:20 2.4
☾	M	8	3:50 18.5	10:47 2.6	16:17 17.4	23:12 3.4
	Tu	9	4:47 17.1	11:43 3.3	17:20 16.2	. . . . . .
	W	10	0:07 4.2	5:52 16.0	12:43 4.2	18:30 15.3
S	Th	11	1:15 4.7	7:08 15.4	13:58 4.6	19:48 15.1
	F	12	2:37 4.7	8:21 15.5	15:16 4.2	20:56 15.5
	S	13	3:51 3.9	9:24 16.0	16:23 3.3	21:51 16.2
	S	14	4:50 3.0	10:15 16.5	17:17 2.5	22:33 16.8
	M	15	5:39 2.2	10:52 17.0	18:01 2.0	23:09 17.3
A ●	Tu	16	6:21 1.8	11:27 17.5	18:38 1.9	23:40 17.9
	W	17	6:54 2.0	11:55 18.0	19:09 2.3	. . . . . .
	Th	18	0:09 18.6	7:20 2.3	12:24 18.7	19:30 2.8
E	F	19	0:39 19.3	7:43 2.6	12:55 19.3	19:51 3.0
	S	20	1:12 19.8	8:07 2.7	13:30 19.7	20:15 3.0
	S	21	1:48 20.1	8:35 2.6	14:07 19.7	20:45 3.0
	M	22	2:30 19.9	9:08 2.7	14:50 19.4	21:24 3.0
	Tu	23	3:15 19.4	9:52 2.9	15:39 18.7	22:10 3.3
☽	W	24	4:07 18.5	10:42 3.2	16:35 17.7	23:05 3.7
	Th	25	5:09 17.4	11:41 3.6	17:43 16.8	. . . . . .
N	F	26	0:10 3.9	6:22 16.8	12:48 3.9	19:00 16.5
	S	27	1:21 4.0	7:40 16.8	14:04 3.9	20:17 17.0
	S	28	2:45 3.7	8:51 17.5	15:28 3.2	21:21 18.1
	M	29	4:02 2.6	9:51 18.7	16:36 2.1	22:15 18.3

MARCH.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	5:06 1.2	10:42 19.6	17:33 0.9	23:05 20.3
○	W	2	5:58 0.2	11:27 20.4	18:22 0.1	23:48 21.0
E	Th	3	6:46 —0.4	12:10 20.8	19:08 —0.3	. . . . . .
	F	4	0:30 21.3	7:30 —0.6	12:50 21.0	19:50 —0.1
	S	5	1:10 21.2	8:12 —0.2	13:30 20.6	20:30 0.4
	S	6	1:50 20.7	8:52 0.7	14:10 20.0	21:10 1.4
	M	7	2:32 19.8	9:32 1.6	14:52 18.9	21:50 2.5
	Tu	8	3:17 18.7	10:15 2.7	15:39 17.7	22:37 3.5
☾	W	9	4:07 17.3	11:07 3.8	16:34 16.4	23:32 4.5
S	Th	10	5:08 15.9	12:05 4.6	17:42 15.2	. . . . . .
	F	11	0:34 5.1	6:24 14.9	13:16 5.2	19:02 14.5
	S	12	1:52 5.3	7:45 14.8	14:38 5.0	20:18 14.9
	S	13	3:12 4.6	8:52 15.4	15:48 4.1	21:19 15.8
A	M	14	4:16 3.5	9:45 16.2	16:45 3.0	22:05 16.7
	Tu	15	5:07 2.5	10:27 17.0	17:29 2.4	22:42 17.5
	W	16	5:47 2.0	11:00 17.7	18:05 2.1	23:15 18.4
● E	Th	17	6:20 1.8	11:31 18.6	18:36 2.1	23:45 19.2
	F	18	6:47 2.0	12:00 19.3	19:02 2.3	. . . . . .
	S	19	0:16 19.9	7:15 2.0	12:32 19.9	19:24 2.4
	S	20	0:50 20.4	7:41 2.2	13:05 20.3	19:52 2.5
	M	21	1:25 20.6	8:10 2.2	13:44 20.3	20:22 2.5
	Tu	22	2:07 20.4	8:46 2.5	14:27 19.8	21:02 2.7
	W	23	2:51 19.7	9:28 2.8	15:13 19.0	21:50 3.1
N ☽	Th	24	3:42 18.7	10:20 3.4	16:08 17.9	22:46 3.6
	F	25	4:42 17.5	11:19 3.9	17:15 16.8	23:50 4.1
	S	26	5:56 16.5	12:28 4.3	18:34 16.2	. . . . . .
	S	27	1:04 4.2	7:17 16.3	13:48 4.2	19:55 16.6
	M	28	2:27 3.7	8:33 17.0	15:08 3.5	21:03 17.8
P	Tu	29	3:45 2.5	9:34 18.3	16:19 2.2	22:00 19.0
E	W	30	4:49 1.2	10:27 19.4	17:16 0.9	22:48 20.0
○	Th	31	5:40 0.1	11:10 20.1	18:04 0.0	23:30 20.6

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	APRIL.					
	F	1	6:27 −0.5	11:51 20.5	18:47 −0.2	. . . . . .
	S	2	0:10 20.9	7:10 −0.4	12:29 20.6	19:31 0.1
	S	3	0:47 20.8	7:51 0.0	13:05 20.4	20:08 0.9
	M	4	1:25 20.4	8:30 1.0	13:42 19.8	20:46 1.7
	Tu	5	2:04 19.6	9:07 2.0	14:23 18.9	21:24 2.7
S	W	6	2:45 18.6	9:47 3.2	15:05 17.8	22:05 3.7
☾	Th	7	3:32 17.3	10:30 4.2	15:56 16.5	22:57 4.6
	F	8	4:27 16.0	11:28 5.0	16:57 15.4	23:55 5.2
	S	9	5:36 15.0	12:28 5.5	18:12 14.6	. . . . . .
A	S	10	1:02 5.4	6:54 14.6	13:44 5.6	19:30 14.7
	M	11	2:17 5.1	8:08 15.0	14:57 5.0	20:35 15.6
	Tu	12	3:25 4.2	9:05 16.0	15:58 4.0	21:27 16.7
E	W	13	4:20 3.2	9:51 17.0	16:45 3.1	22:10 17.8
	Th	14	5:05 2.4	10:30 18.0	17:24 2.4	22:45 18.8
●	F	15	5:41 1.9	11:04 18.9	17:55 2.2	23:19 19.6
	S	16	6:12 1.8	11:36 19.8	18:30 2.0	23:52 20.3
	S	17	6:46 1.7	12:08 20.4	19:00 2.0	. . . . . .
	M	18	0:28 20.8	7:18 1.8	12:45 20.7	19:31 2.0
	Tu	19	1:04 20.9	7:52 2.0	13:24 20.6	20:07 2.2
N	W	20	1:45 20.6	8:28 2.4	14:07 20.2	20:49 2.6
	Th	21	2:30 19.9	9:11 2.8	14:53 19.3	21:35 3.0
	F	22	3:22 18.8	10:04 3.5	15:48 18.1	22:34 3.5
☽	S	23	4:31 17.5	11:05 4.0	16:54 16.9	23:40 3.9
	S	24	5:34 16.5	12:14 4.3	18:12 16.2	. . . . . .
	M	25	0:50 4.0	6:55 16.2	13:30 4.2	19:31 16.5
P	Tu	26	2:10 3.6	8:12 16.8	14:48 3.5	20:42 17.5
E	W	27	3:25 2.5	9:15 17.9	15:59 2.3	21:40 18.6
	Th	28	4:25 1.4	10:06 18.9	16:55 1.3	22:27 19.5
○	F	29	5:20 0.5	10:52 19.5	17:46 0.5	23:10 20.0
	S	30	6:08 0.0	11:32 19.8	18:30 0.4	23:50 20.1
	MAY.					
	S	1	6:50 0.3	12:08 19.8	19:10 0.7	. . . . . .
	M	2	0:25 20.0	7:31 0.8	12:42 19.6	19:50 1.3
S	Tu	3	1:00 19.6	8:10 1.7	13:18 19.3	20:26 2.2
	W	4	1:38 19.0	8:47 2.6	13:55 18.7	21:04 3.1
	Th	5	2:17 18.4	9:21 3.6	14:35 17.9	21:40 3.7
	F	6	3:00 17.4	10:00 4.4	15:21 17.0	22:23 4.5
☾	S	7	3:50 16.4	10:50 5.1	16:16 16.0	23:17 4.9
A	S	8	4:50 15.5	11:44 5.4	17:22 15.3	. . . . . .
	M	9	0:12 5.1	6:00 14.9	12:42 5.5	18:35 15.1
	Tu	10	1:16 5.0	7:15 15.1	13:48 5.2	19:45 15.7
E	W	11	2:20 4.5	8:20 16.0	14:52 4.5	20:43 16.7
	Th	12	3:21 3.7	9:10 17.0	15:47 3.7	21:30 17.8
	F	13	4:12 2.8	9:54 18.2	16:36 2.9	22:14 18.9
	S	14	5:00 2.2	10:33 19.1	17:20 2.3	22:51 19.7
●	S	15	5:40 1.7	11:12 20.0	17:58 1.9	23:30 20.4
	M	16	6:20 1.5	11:48 20.5	18:38 1.7	. . . . . .
	Tu	17	0:07 20.8	7:00 1.6	12:27 20.8	19:17 1.7
N	W	18	0:47 20.9	7:37 1.8	13:07 20.8	19:48 1.9
	Th	19	1:30 20.6	8:20 2.2	13:51 20.4	20:42 2.2
	F	20	2:15 20.0	9:05 2.6	14:39 19.5	21:30 2.6
	S	21	3:05 18.9	9:54 3.1	15:38 18.5	22:24 3.0
☽ P	S	22	4:05 17.8	10:56 3.7	16:37 17.4	23:27 3.4
	M	23	5:14 16.8	11:58 4.0	17:48 16.6	. . . . . .
E	Tu	24	0:32 3.5	6:31 16.3	13:07 4.0	19:05 16.6
	W	25	1:47 3.3	7:47 16.6	14:20 3.6	20:17 17.2
	Th	26	2:58 2.7	8:52 17.4	15:32 2.8	21:17 18.0
	F	27	4:02 1.8	9:46 18.1	16:32 1.9	22:08 18.6
	S	28	5:02 1.1	10:32 18.6	17:27 1.3	22:50 18.9
○	S	29	5:52 0.8	11:11 18.8	18:15 1.0	23:30 19.0
	M	30	6:35 0.9	11:49 18.9	18:57 1.2	. . . . . .
S	Tu	31	0:06 18.9	7:17 1.3	12:24 18.8	19:35 1.9
	JUNE.					
	W	1	0:41 18.8	7:55 2.2	12:57 18.7	20:11 2.6
	Th	2	1:15 18.5	8:28 3.0	13:30 18.5	20:45 3.3
	F	3	1:52 18.2	9:00 3.7	14:09 18.1	21:17 3.8
	S	4	2:31 17.7	9:32 4.4	14:52 17.6	21:52 4.2
A	S	5	3:17 17.0	10:11 4.7	15:40 17.0	22:38 4.5
☾	M	6	4:10 16.4	11:00 5.0	16:37 16.4	23:28 4.5
E	Tu	7	5:10 15.9	11:50 5.0	17:40 16.0	. . . . . .
	W	8	0:20 4.4	6:18 15.7	12:45 4.8	18:48 16.1
	Th	9	1:17 4.2	7:25 16.0	13:44 4.5	19:53 16.7
	F	10	2:20 3.8	8:25 16.9	14:47 3.9	20:50 17.6
	S	11	3:22 3.2	9:17 17.9	15:50 3.2	21:40 18.7
	S	12	4:19 2.5	10:05 19.0	16:43 2.5	22:27 19.5
●	M	13	5:09 1.9	10:48 19.8	17:33 1.9	23:08 20.3
N	Tu	14	5:58 1.5	11:30 20.5	18:20 1.5	23:50 20.7
	W	15	6:42 1.3	12:10 20.9	19:05 1.2	. . . . . .
	Th	16	0:32 20.8	7:27 1.4	12:54 20.9	19:50 1.3
P	F	17	1:16 20.7	8:12 1.6	13:38 20.6	20:36 1.5
	S	18	2:02 20.2	8:58 1.9	14:25 20.0	21:22 1.8
	S	19	2:52 19.3	9:44 2.4	15:17 19.0	22:12 2.2
☽ E	M	20	3:47 18.3	10:40 3.0	16:15 18.1	23:10 2.7
	Tu	21	4:49 17.3	11:38 3.4	17:22 17.2	. . .
	W	22	0:10 3.0	6:00 16.5	12:40 3.7	18:35 16.6
	Th	23	1:17 3.3	7:13 16.3	13:50 3.8	19:47 16.7
	F	24	2:29 3.2	8:25 16.6	15:05 3.4	20:51 17.1
	S	25	3:40 2.6	9:23 17.1	16:12 2.7	21:47 17.6
	S	26	4:42 2.0	10:15 17.5	17:10 2.0	22:35 17.9
S ○	M	27	5:36 1.5	10:56 17.8	18:00 1.5	23:15 18.0
	Tu	28	6:24 1.3	11:34 18.0	18:45 1.5	23:51 18.0
	W	29	7:05 1.7	12:06 18.1	19:23 1.8	. . . . . .
	Th	30	0:24 18.0	7:40 2.3	12:38 18.2	19:58 2.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water add the tabular height to the soundings given on the chart unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			JULY.			
	F	1	0:55 18.1	8:11 3.0	13:10 18.4	20:27 3.1
	S	2	1:28 18.1	8:38 3.7	13:45 18.5	20:53 3.6
A	S	3	2:05 18.1	9:04 4.0	14:24 18.4	21:22 3.7
	M	4	2:45 17.9	9:34 4.2	15:07 18.1	21:59 3.8
E ☾	Tu	5	3:32 17.5	10:15 4.3	15:57 17.6	22:42 3.9
	W	6	4:24 17.1	11:00 4.3	16:53 17.1	23:32 3.8
	Th	7	5:25 16.6	11:52 4.3	17:56 16.7	. . . . . .
	F	8	0:27 3.8	6:32 16.4	12:52 4.2	19:05 16.8
	S	9	1:26 3.8	7:39 16.7	13:56 4.0	20:10 17.3
	S	10	2:33 3.5	8:42 17.5	15:05 3.5	21:10 18.2
	M	11	3:42 2.9	9:37 18.6	16:13 2.7	22:02 19.0
N	Tu	12	4:45 2.2	10:27 19.5	17:15 1.9	22:50 19.9
●	W	13	5:40 1.5	11:13 20.4	18:05 1.2	23:35 0.5
	Th	14	6:30 1.0	11:57 20.9	18:54 0.7	. . . . . .
P	F	15	0:18 20.8	7:16 0.8	12:41 21.2	19:40 0.5
	S	16	1:02 20.9	8:01 0.8	13:25 21.0	20:25 0.6
	S	17	1:48 20.5	8:46 1.1	14:11 20.7	21:11 0.8
E	M	18	2:35 19.9	9:30 1.6	14:59 19.9	21:55 1.4
☽	Tu	19	3:25 19.0	10:16 2.2	15:51 18.8	22:45 2.1
	W	20	4:19 17.9	11:11 3.0	16:50 17.7	23:42 2.8
	Th	21	5:25 16.7	12:10 3.7	17:58 16.6	. . . . . .
	F	22	0:45 3.5	6:36 15.9	13:17 4.1	19:12 16.1
	S	23	1:59 3.8	7:52 15.7	14:36 4.1	20:24 16.2
S	S	24	3:14 3.5	9:00 16.2	15:50 3.4	21:27 16.6
	M	25	4:23 2.7	9:55 16.7	16:53 2.4	22:19 17.0
	Tu	26	5:20 2.0	10:40 17.1	17:45 1.8	23:00 17.3
○	W	27	6:07 1.6	11:19 17.4	18:30 1.5	23:36 17.5
	Th	28	6:49 1.5	11:50 17.8	19:08 1.7	. . . . . .
	F	29	0:07 17.7	7:24 2.1	12:20 18.1	19:38 2.3
A	S	30	0:36 18.0	7:52 2.7	12:50 18.6	20:06 2.7
	S	31	1:05 18.5	8:15 3.3	13:22 18.9	20:27 3.1

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			AUGUST.			
E	M	1	1:38 18.7	8:34 3.6	13:57 19.2	20:52 3.3
	Tu	2	2:16 18.8	9:00 3.6	14:37 19.1	21:21 3.2
	W	3	2:59 18.6	9:35 3.6	15:22 18.7	22:02 3.3
☾	Th	4	3:46 18.1	10:19 3.7	16:12 18.1	22:50 3.5
	F	5	4:40 17.4	11:09 3.8	17:12 17.3	23:44 3.7
	S	6	5:45 16.8	12:08 4.0	18:20 16.8	. . . . . .
	S	7	0:46 3.8	6:57 16.6	13:15 4.0	19:38 16.9
N	M	8	1:55 3.8	8:10 17.0	14:30 3.7	20:43 17.6
	Tu	9	3:12 3.4	9:12 18.0	15:47 3.0	21:42 18.6
	W	10	4:24 2.4	10:09 19.2	16:56 1.9	22:34 19.5
●	Th	11	5:24 1.4	10:57 20.1	17:50 0.8	23:21 20.4
P	F	12	6:17 0.5	11:42 21.0	18:40 0.0	. . . . . .
	S	13	0:05 20.9	7:02 0.1	12:25 21.4	19:25 —0.3
E	S	14	0:47 21.2	7:45 0.0	13:09 21.5	20:08 —0.3
	M	15	1:30 21.0	8:27 0.3	13:52 21.2	20:51 0.2
	Tu	16	2:13 20.4	9:10 1.0	14:36 20.4	21:34 1.0
	W	17	3:00 19.5	9:55 1.8	15:24 19.3	22:21 1.9
☽	Th	18	3:49 18.2	10:54 2.8	16:17 17.9	23:16 3.0
	F	19	4:46 16.9	11:40 3.8	17:20 16.5	. . . . . .
	S	20	0:12 3.8	5:57 15.6	12:43 4.5	18:34 15.6
S	S	21	1:26 4.5	7:14 15.1	14:03 4.7	19:55 15.4
	M	22	2:47 4.3	8:30 15.4	15:25 4.0	21:05 15.8
	Tu	23	4:00 3.5	9:34 16.0	16:29 3.0	22:00 16.4
	W	24	4:58 2.4	10:20 16.6	17:22 2.1	22:43 17.0
	Th	25	5:45 1.8	11:00 17.3	18:06 1.6	23:17 17.4
○	F	26	6:26 1.5	11:30 17.8	18:44 1.5	23:47 17.8
A	S	27	7:00 1.9	12:00 18.4	19:12 2.0	. . . . . .
E	S	28	0:15 18.4	7:25 2.5	12:28 19.0	19:36 2.5
	M	29	0:42 18.9	7:47 2.9	12:59 19.5	19:58 2.7
	Tu	30	1:14 19.4	8:05 3.1	13:32 19.9	20:22 2.8
	W	31	1:49 19.6	8:30 3.1	14:11 19.9	20:52 2.9

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
			SEPTEMBER.			
	Th	1	2:28 19.5	9:02 3.2	14:52 19.5	21:27 3.0
	F	2	3:14 18.9	9:47 3.3	15:40 18.8	22:16 3.3
☾	S	3	4:07 18.0	10:38 3.6	16:38 17.7	23:10 3.7
N	S	4	5:08 17.0	11:37 4.0	17:46 16.8	. . . . . .
	M	5	0:15 4.0	6:22 16.4	12:47 4.1	19:02 16.5
	Tu	6	1:27 4.1	7:40 16.6	14:04 3.9	20:19 17.0
	W	7	2:48 3.7	8:50 17.6	15:28 3.1	21:24 18.2
	Th	8	4:04 2.6	9:50 18.8	16:36 1.8	22:17 19.3
P ●	F	9	5:05 1.4	10:40 20.0	17:33 0.5	23:05 20.3
E	S	10	5:57 0.3	11:26 21.0	18:20 —0.3	23:48 21.0
	S	11	6:43 —0.3	12:08 21.6	19:07 —0.8	. . . . . .
	M	12	0:30 21.3	7:25 —0.3	12:47 21.6	19:48 —0.5
	Tu	13	1:09 21.2	8:07 0.1	13:30 21.3	20:30 0.1
	W	14	1:50 20.6	8:48 0.8	14:14 20.5	21:10 1.0
	Th	15	2:32 19.6	9:30 1.8	14:55 19.3	21:55 2.2
☽	F	16	3:18 18.4	10:16 2.9	15:45 18.0	22:44 3.3
S	S	17	4:11 16.9	11:10 3.9	16:42 16.5	23:43 4.3
	S	18	5:15 15.6	12:11 4.7	17:53 15.3	. . . . . .
	M	19	0:50 4.9	6:32 14.7	13:28 5.0	19:17 14.8
	Tu	20	2:11 4.9	7:56 14.8	14:48 4.6	20:32 15.2
	W	21	3:27 4.2	9:00 15.6	15:51 3.5	21:30 16.0
	Th	22	4:27 3.1	9:52 16.5	16:50 2.3	22:16 16.8
A	F	23	5:15 2.2	10:32 17.3	17:35 1.7	22:50 17.4
○ E	S	24	5:55 1.7	11:05 18.0	18:10 1.7	23:20 18.1
	S	25	6:27 2.0	11:34 18.7	18:40 1.8	23:50 18.8
	M	26	6:51 2.3	12:02 19.4	19:05 2.2	. . . . . .
	Tu	27	0:17 19.4	7:14 2.6	12:34 20.0	19:29 2.4
	W	28	0:50 19.9	7:38 2.7	13:09 20.3	19:55 2.5
	Th	29	1:24 20.1	8:06 2.8	13:45 20.3	20:25 2.7
	F	30	2:05 19.9	8:42 2.9	14:29 19.8	21:04 2.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	2:50 19.3	9:22 3.1	15:14 19.0	21:48 3.3
N ☾	S	2	3:40 18.4	10:16 3.5	16:12 17.9	22:47 3.9
	M	3	4:40 17.3	11:17 4.0	17:18 16.8	23:58 4.2
	Tu	4	5:55 16.4	12:27 4.1	18:36 16.3	. . . . . .
	W	5	1:05 4.3	7:16 16.4	13:45 3.9	19:56 16.7
	Th	6	2:26 3.8	8:30 17.3	15:07 3.0	21:04 17.9
	F	7	3:40 2.7	9:30 18.7	16:12 1.7	22:00 19.0
P E	S	8	4:44 1.4	10:20 19.8	17:10 0.5	22:46 20.0
●	S	9	5:35 0.5	11:07 20.7	18:00 —0.3	23:29 20.7
	M	10	6:21 0.0	11:47 21.2	18:45 —0.4	. . . . . .
	Tu	11	0:09 21.0	7:05 —0.1	12:29 21.2	19:28 —0.2
	W	12	0:45 20.8	7:47 0.3	13:07 20.8	20:10 0.5
	Th	13	1:26 20.3	8:28 1.2	13:47 20.1	20:51 1.5
S	F	14	2:05 19.5	9:10 2.0	14:28 19.0	21:30 2.5
	S	15	2:48 18.5	9:52 3.1	15:14 17.9	22:17 3.6
☽	S	16	3:37 17.1	10:40 4.0	16:07 16.5	23:12 4.5
	M	17	4:36 15.8	11:39 4.7	17:12 15.3	. . . . . .
	Tu	18	0:12 5.1	5:57 14.9	12:42 5.1	18:30 14.6
	W	19	1:22 5.3	7:05 14.7	13:58 4.9	19:48 14.9
A	Th	20	2:37 4.9	8:18 15.3	15:09 4.2	20:50 15.7
	F	21	3:39 4.1	9:12 16.3	16:04 3.3	21:39 16.6
E	S	22	4:30 3.2	9:55 17.3	16:50 2.6	22:17 17.5
	S	23	5:13 2.5	10:31 18.2	17:27 2.2	22:50 18.3
○	M	24	5:47 2.3	11:06 18.9	18:05 1.9	23:22 19.1
	Tu	25	6:19 2.3	11:37 19.7	18:36 1.9	23:54 19.8
	W	26	6:48 2.3	12:12 20.2	19:03 2.2	. . . . . .
	Th	27	0:28 20.2	7:15 2.4	12:46 20.5	19:34 2.3
	F	28	1:04 20.4	7:50 2.5	13:24 20.5	20:08 2.5
N	S	29	1:45 20.2	8:28 2.7	14:06 20.0	20:50 2.9
	S	30	2:30 19.6	9:12 2.9	14:55 19.2	21:36 3.3
☾	M	31	3:20 18.7	10:08 3.3	15:50 18.1	22:34 3.9

NOVEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Tu	1	4:20 17.5	11:05 3.7	16:55 17.0	23:37 4.2
	W	2	5:31 16.7	12:12 3.9	18:12 16.4	. . . . . .
	Th	3	0:47 4.2	6:50 16.5	13:25 3.7	19:32 16.5
E	F	4	2:03 3.8	8:05 17.2	14:40 3.0	20:41 17.5
P	S	5	3:16 2.9	9:08 18.3	15:50 1.9	21:37 18.6
	S	6	4:20 1.8	10:00 19.3	16:49 0.9	22:27 19.4
●	M	7	5:15 0.9	10:48 20.0	17:40 0.3	23:10 19.9
	Tu	8	6:02 0.5	11:27 20.4	18:26 0.1	23:50 20.1
	W	9	6:48 0.5	12:07 20.3	19:11 0.4	. . . . . .
	Th	10	0:27 20.0	7:32 0.8	12:46 20.0	19:53 1.0
S	F	11	1:03 19.6	8:11 1.6	13:24 19.5	20:33 1.8
	S	12	1:42 19.0	8:51 2.4	14:02 18.8	21:11 2.9
	S	13	2:22 18.4	9:32 3.2	14:47 17.8	21:52 3.8
	M	14	3:07 17.4	10:13 4.0	15:34 16.8	22:38 4.6
☽	Tu	15	3:58 16.4	11:04 4.5	16:29 15.8	23:32 5.0
	W	16	5:00 15.6	12:00 4.8	17:37 15.1	. . . . . .
A	Th	17	0:27 5.3	6:12 15.1	12:58 4.9	18:50 15.0
E	F	18	1:30 5.2	7:22 15.4	14:03 4.6	19:57 15.5
	S	19	2:33 4.8	8:23 16.2	15:02 4.0	20:52 16.4
	S	20	3:30 4.1	9:12 17.2	15:56 3.3	21:38 17.4
	M	21	4:21 3.3	9:57 18.2	16:45 2.6	22:18 18.4
	Tu	22	5:07 2.7	10:37 19.0	17:27 2.2	22:55 19.2
○	W	23	5:47 2.3	11:13 19.7	18:05 2.0	23:31 19.9
	Th	24	6:22 2.1	11:50 20.2	18:42 2.0	. . . . . .
N	F	25	0:09 20.4	7:02 2.0	12:28 20.5	19:20 2.1
	S	26	0:48 20.5	7:38 2.1	13:09 20.5	20:00 2.3
	S	27	1:30 20.4	8:21 2.3	13:52 20.0	20:42 2.6
	M	28	2:15 19.9	9:07 2.5	14:40 19.4	21:27 3.0
	Tu	29	3:06 19.1	9:54 2.8	15:34 18.4	22:21 3.4
☾	W	30	4:03 18.0	10:53 3.1	16:35 17.4	23:22 3.8

DECEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	5:08 17.2	11:56 3.3	17:48 16.6	. . . . . .
E	F	2	0:27 3.9	6:25 16.8	13:02 3.4	19:03 16.5
P	S	3	1:37 3.7	7:38 17.0	14:14 3.0	20:14 17.0
	S	4	2:49 3.3	8:43 17.8	15:25 2.4	21:15 17.8
	M	5	3:58 2.4	9:38 18.5	16:27 1.6	22:07 18.5
	Tu	6	4:58 1.7	10:30 18.9	17:24 1.0	22:52 18.8
●	W	7	5:50 1.1	11:12 19.1	18:14 0.7	23:30 19.0
S	Th	8	6:37 1.0	11:50 19.2	18:58 0.9	. . . . . .
	F	9	0:10 19.0	7:20 1.2	12:27 19.0	19:40 1.5
	S	10	0:45 18.9	8:00 1.8	13:04 18.8	20:17 2.2
	S	11	1:18 18.7	8:37 2.5	13:40 18.4	20:53 3.1
	M	12	1:58 18.4	9:10 3.2	14:19 17.9	21:27 3.8
	Tu	13	2:40 17.9	9:45 3.7	15:02 17.3	22:02 4.4
☽	W	14	3:25 17.3	10:26 4.1	15:52 16.6	22:47 4.7
A E	Th	15	4:17 16.6	11:13 4.4	16:46 16.0	23:34 5.0
	F	16	5:16 16.1	12:02 4.4	17:50 15.6	. . . . . .
	S	17	0:26 4.9	6:20 16.0	12:57 4.4	18:59 15.7
	S	18	1:22 4.8	7:30 16.2	13:57 4.2	20:02 16.2
	M	19	2:24 4.4	8:28 16.9	14:59 3.7	20:57 17.2
	Tu	20	3:26 3.8	9:20 17.8	15:59 3.1	21:46 18.2
	W	21	4:25 3.1	10:07 18.7	16:52 2.5	22:30 19.0
○	Th	22	5:17 2.4	10:50 19.5	17:40 2.0	23:10 19.8
N	F	23	6:01 1.9	11:32 20.1	18:24 1.8	23:52 20.4
	S	24	6:46 1.6	12:13 20.5	19:07 1.7	. . . . . .
	S	25	0:34 20.8	7:30 1.5	12:55 20.5	19:52 1.7
	M	26	1:17 20.8	8:14 1.5	13:39 20.4	20:34 1.9
P	Tu	27	2:02 20.5	9:00 1.7	14:27 19.9	21:20 2.2
	W	28	2:51 19.7	9:46 2.0	15:17 19.0	22:07 2.6
E ☾	Th	29	3:45 18.8	10:38 2.4	16:15 18.0	23:04 3.1
	F	30	4:45 17.9	11:36 2.8	17:18 17.1	. . . . . .
	S	31	0:02 3.6	5:52 17.0	12:37 3.2	18:31 16.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:17 5.6	10:08 1.6	17:58 5.4	22:34 1.1
N	S	2	6:24 6.4	11:20 1.1	18:49 6.0	23:35 0.9
○	S	3	7:10 7.2	12:31 0.8	19:32 . . . 6.8 . . .	
P	M	4	0:31 0.8	7:49 7.6	13:40 0.5	20:14 7.2
	Tu	5	1:20 0.8	8:29 7.8	16:11 0.5	20:55 7.0
	W	6	2:02 1.0	9:09 7.7	17:02 0.8	21:34 6.7
	Th	7	2:40 1.2	9:46 7.3	17:54 0.9	22:11 6.3
E	F	8	3:16 1.6	10:23 6.8	18:45 1.4	22:50 5.7
☾	S	9	3:55 2.0	11:00 6.2	19:34 1.7	23:30 5.3
	S	10	4:40 2.3	11:42 5.6	20:24 . . . 2.1 . . .	
	M	11	0:16 4.8	5:29 2.5	12:31 5.0	21:23 2.5
	Tu	12	1:15 4.6	6:30 2.7	13:38 4.5	22:22 2.6
	W	13	3:32 4.5	7:31 2.8	15:45 4.5	23:25 2.5
	Th	14	4:40 4.9	8:39 2.7	17:04 . . . 4.8 . . .	
S	F	15	0:19 2.3	5:29 5.4	9:49 2.5	17:51 5.2
	S	16	1:13 2.0	6:10 6.0	11:00 2.1	18:38 5.6
●	S	17	2:02 1.8	6:54 6.5	12:00 1.6	19:16 5.9
	M	18	2:48 1.8	7:31 6.7	13:06 1.5	19:49 6.0
A	Tu	19	3:35 1.7	8:01 6.8	14:02 1.4	20:20 6.0
	W	20	3:10 1.7	8:30 6.7	14:56 1.4	20:46 5.8
	Th	21	2:30 1.7	8:56 6.5	15:50 1.3	21:11 5.6
	F	22	1:54 1.7	9:21 6.2	16:34 1.2	21:35 5.5
E	S	23	2:30 1.6	9:48 5.9	16:50 1.2	22:05 5.3
	S	24	3:09 1.7	10:20 5.6	15:45 1.2	22:40 5.1
☽	M	25	3:56 1.8	10:59 5.3	16:34 1.4	23:24 4.9
	Tu	26	4:50 2.0	11:43 4.9	17:30 . . . 1.7 . . .	
	W	27	0:20 4.7	5:55 2.3	12:45 4.6	19:35 1.9
	Th	28	1:36 4.6	7:06 2.4	14:15 4.3	18:43 1.9
N	F	29	3:50 4.9	8:21 2.3	16:31 4.7	20:54 1.8
	S	30	5:11 5.6	9:40 1.8	17:40 5.5	22:10 1.5
	S	31	6:08 6.6	11:20 1.2	18:34 6.4	23:30 1.2

FEBRUARY.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
○	M	1	6:53 7.4	13:20 0.6	19:19 . . . 7.0 . . .	
P	Tu	2	0:46 0.9	7:35 7.9	15:00 0.1	19:58 7.4
	W	3	1:30 0.5	8:15 8.1	15:46 0.0	20:38 7.5
E	Th	4	2:06 0.8	8:58 8.0	16:00 0.2	21:16 7.2
	F	5	2:35 1.0	9:30 7.7	16:20 0.6	21:51 6.8
	S	6	3:03 1.2	10:04 7.1	16:48 1.0	22:25 6.2
	S	7	3:34 1.6	10:37 6.4	17:30 1.3	22:58 5.7
☾	M	8	4:30 2.0	11:10 5.7	18:22 1.7	23:34 5.1
	Tu	9	6:20 2.4	11:51 5.0	18:57 . . . 2.1 . . .	
	W	10	0:18 4.7	7:18 2.7	12:41 4.4	19:40 2.5
S	Th	11	1:20 4.3	8:20 2.9	14:03 3.6	20:30 2.7
	F	12	4:15 4.4	10:00 2.6	16:41 4.2	22:50 2.6
	S	13	5:10 4.9	11:10 2.0	17:37 4.8	23:59 2.3
	S	14	5:52 5.5	12:30 1.6	18:20 . . . 5.3 . . .	
	M	15	1:10 2.0	6:31 6.2	13:50 1.3	18:57 5.8
A	Tu	16	2:05 1.8	7:10 6.7	14:52 1.2	19:29 6.1
●	W	17	2:00 1.7	7:40 6.9	14:04 1.2	19:57 6.3
	Th	18	1:34 1.6	8:09 6.9	13:40 1.1	20:25 6.3
E	F	19	1:20 1.4	8:35 6.8	13:50 1.0	20:50 6.2
	S	20	1:41 1.3	9:01 6.6	14:09 0.9	21:15 6.0
	S	21	2:15 1.3	9:29 6.3	14:44 0.9	21:44 5.8
	M	22	2:52 1.4	10:00 5.9	15:20 1.0	22:18 5.5
	Tu	23	3:34 1.6	10:36 5.4	16:04 1.2	22:58 5.2
☽	W	24	4:24 1.8	11:19 5.0	16:56 1.6	23:48 4.8
	Th	25	5:24 2.1	12:15 4.5	18:00 . . . 2.0 . . .	
N	F	26	0:55 4.5	6.35 2.4	13:36 4.4	19:10 2.2
	S	27	2:42 4.6	7:53 2.4	16:16 4.5	21:15 2.2
	S	28	4:53 5.3	10:50 1.9	17:26 5.3	23:05 1.9
	M	29	5:45 6.4	12:50 1.0	18:17 . . . 6.3 . . .	

MARCH.						
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
P	Tu	1	0:29 1.4	6:33 7.3	13:56 0.3	19:00 7.0
○	W	2	2:08 0.8	7:16 8.0	14:37 —0.2	19:39 7.6
E	Th	3	2:44 0.6	7:54 8.2	15:22 —0.2	20:16 7.7
	F	4	2:30 0.6	8:31 8.2	15:56 0.0	20:52 7.6
	S	5	2:20 0.8	9:08 7.8	15:20 0.4	21:25 7.1
	S	6	2:41 1.1	9:40 7.2	15:04 0.9	21:55 6.6
	M	7	3:07 1.5	10:10 6.4	15:26 1.3	22:25 6.0
	Tu	8	3:39 1.9	10:40 5.6	15:57 1.8	22:58 5.4
☾	W	9	4:15 2.2	11:15 4.9	16:34 2.2	23:35 4.9
S	Th	10	5:00 2.6	11:57 4.2	17:20 . . . 2.6 . . .	
	F	11	0:25 4.4	6:30 2.9	13:00 3.6	18:16 2.9
	S	12	1:47 4.2	8:25 2.7	16:15 3.8	19:26 3.0
	S	13	4:51 4.5	10:15 2.2	17:17 4.4	22:50 2.7
A	M	14	5:32 5.2	11:40 1.7	17:56 5.1	23:50 2.3
	Tu	15	6:09 6.0	12:10 1.3	18:35 . . . 5.7 . . .	
	W	16	0:05 1.8	6:47 6.6	11:48 1.2	19:01 6.2
● E	Th	17	0:02 1.7	7:20 6.9	12:14 0.9	19:35 6.6
	F	18	0:20 1.4	7:47 7.1	12:45 0.7	20:03 6.8
	S	19	0:54 1.3	8:15 7.0	13:16 0.6	20:30 6.7
	S	20	1:26 1.2	8:43 6.8	13:48 0.5	20:58 6.5
	M	21	2:01 1.2	9:11 6.4	14:20 0.7	21:26 6.3
	Tu	22	2:36 1.3	9:43 5.9	14:57 0.9	22:00 5.9
	W	23	3:15 1.5	10:18 5.4	15:37 1.3	22:38 5.5
N ☽	Th	24	4:01 1.7	11:00 4.8	16:25 1.7	23:25 5.1
	F	25	4:59 2.1	11:53 4.3	17:28 . . . 2.2 . . .	
	S	26	0:26 4.7	6:11 2.4	13:12 3.9	18:43 2.5
	S	27	2:05 4.6	8:34 2.5	16:16 4.3	21:20 2.6
	M	28	4:15 5.2	11:06 1.6	17:13 5.3	23:20 2.2
P	Tu	29	5:28 6.2	12:48 0.9	17:57 . . . 6.2 . . .	
E	W	30	1:06 1.5	6:11 7.1	13:30 0.2	18:40 7.0
○	Th	31	1:46 1.0	6:49 7.7	14:09 —0.1	19:18 7.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	0:30 0.4	7:20 7.9	12:54 0.1	19:41 7.8
	S	2	1:09 0.3	7:57 7.9	13:32 0.2	20:16 7.7
	S	3	1:46 0.4	8:34 7.6	14:06 0.6	20:51 7.4
	M	4	2:23 0.7	9:09 7.0	14:39 1.0	21:25 6.8
	Tu	5	2:56 1.1	9:43 6.3	15:10 1.5	21:58 6.1
S	W	6	3:30 1.5	10:18 5.5	15:40 1.9	22:34 5.5
☾	Th	7	4:09 1.9	10:54 4.8	16:19 2.4	23:15 4.8
	F	8	4:55 2.2	11:40 4.2	17:07 2.7	. . . . . .
	S	9	0:06 4.4	5:50 2.6	12:40 3.7	18:10 3.1
A	S	10	1:15 4.0	6:54 2.9	14:40 3.6	19:12 3.2
	M	11	3:24 4.0	7:57 2.9	16:26 4.3	20:14 3.0
	Tu	12	4:43 4.6	8:56 2.4	17:16 5.0	21:19 2.6
E	W	13	5:27 5.4	9:59 1.7	17:50 5.7	22:21 1.9
	Th	14	6:03 6.1	10:51 1.2	18:24 6.4	23:15 1.4
●	F	15	6:37 6.6	11:39 0.7	18:56 6.9	. . . . . .
	S	16	0:00 0.9	7:11 6.9	12:20 0.5	19:30 7.1
	S	17	0:42 0.7	7:48 7.0	13:01 0.4	20:05 7.1
	M	18	1:22 0.6	8:22 6.8	13:39 0.5	20:38 6.9
	Tu	19	2:01 0.7	8:57 6.5	14:16 0.8	21:15 6.6
N	W	20	2:40 0.9	9:34 6.0	14:56 1.2	21:51 6.1
	Th	21	3:22 1.2	10:14 5.5	15:37 1.6	22:33 5.6
	F	22	4:10 1.5	11:01 5.0	16:30 2.1	23:21 5.1
☽	S	23	5:10 1.9	11:58 4.5	17:35 2.5	. . . . . .
	S	24	0:24 4.7	6:18 2.2	13:18 4.2	18:45 2.8
	M	25	1:55 4.2	7:28 2.3	15:25 4.5	19:50 2.7
P	Tu	26	3:42 4.9	8:39 1.9	16:36 5.3	21:05 2.1
E	W	27	4:49 5.6	9:45 1.4	17:24 6.1	22:10 1.6
	Th	28	5:40 6.5	10:41 0.9	18:05 6.8	23:07 1.0
○	F	29	6:21 7.0	11:34 0.5	18:41 7.3	23:55 0.7
	S	30	6:58 7.4	12:18 0.4	19:17 7.6	. . . . . .

MAY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	0:39 0.5	7:35 7.4	12:55 0.6	19:52 7.6
	M	2	1:18 0.6	8:12 7.2	13:31 0.8	20:27 7.2
S	Tu	3	1:55 0.9	8:47 6.7	14:04 1.2	21:01 6.8
	W	4	2:30 1.2	9:21 6.0	14:35 1.6	21:35 6.2
	Th	5	3:04 1.5	9:51 5.4	15:05 2.0	22:08 5.6
	F	6	3:40 1.8	10:29 4.8	15:44 2.3	22:48 5.1
☾	S	7	4:23 2.0	11:13 4.3	16:31 2.6	23:31 4.7
A	S	8	5:18 2.3	12:05 3.9	17:30 2.9	. . . . . .
	M	9	0:29 4.3	6:15 2.5	13:17 3.7	18:38 3.1
	Tu	10	1:50 4.1	7:20 2.5	15:12 4.0	19:40 2.9
E	W	11	3:35 4.3	8:19 2.1	16:28 4.8	20:44 2.5
	Th	12	4:41 5.0	9:16 1.6	17:14 5.5	21:46 2.0
	F	13	5:30 5.7	10:12 1.1	17:54 6.2	22:42 1.4
	S	14	6:10 6.3	11:04 0.7	18:31 6.8	23:34 0.9
●	S	15	6:50 6.7	11:53 0.5	19:09 7.2	. . . . . .
	M	16	0:21 0.6	7:27 6.9	12:38 0.4	19:45 7.3
	Tu	17	1:05 0.5	8:06 6.9	13:20 0.6	20:23 7.2
N	W	18	1:50 0.6	8:45 6.6	14:03 0.9	21:00 6.9
	Th	19	2:32 0.8	9:24 6.2	14:45 1.3	21:40 6.5
	F	20	3:18 1.1	10:05 5.7	15:30 1.6	22:22 6.0
	S	21	4:07 1.5	10:52 5.2	16:20 2.2	23:10 5.5
☽ P	S	22	5:04 1.8	11:48 4.8	17:20 2.5	. . . . . .
	M	23	0:06 5.1	6:07 2.1	12:55 4.5	18:25 2.8
E	Tu	24	1:20 4.8	7:09 2.1	14:35 4.6	19:29 2.7
	W	25	2:55 4.9	8:10 1.9	16:00 5.1	20:34 2.3
	Th	26	4:15 5.2	9:10 1.6	16:55 5.8	21:34 1.9
	F	27	5:13 5.8	10:04 1.3	17:40 6.4	22:30 1.4
	S	28	6:00 6.4	10:54 1.1	18:20 6.9	23:23 1.1
○	S	29	6:39 6.7	11:40 0.9	18:55 7.2	. . . . . .
	M	30	0:10 0.9	7:17 6.8	12:22 1.0	19:32 7.3
S	Tu	31	0:51 0.9	7:54 6.7	13:00 1.2	20:08 7.1

JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	1:31 1.1	8:28 6.3	13:34 1.5	20:42 6.3
	Th	2	2:06 1.3	9:03 5.8	14:07 1.7	21:15 6.3
	F	3	2:40 1.5	9:34 5.3	14:40 2.0	21:48 5.8
	S	4	3:17 1.7	10:05 4.9	15:15 2.2	22:25 5.3
A	S	5	3:57 1.8	10:46 4.5	16:00 2.4	23:02 4.9
☾	M	6	4:45 1.9	11:32 4.3	16:58 2.6	23:50 4.6
E	Tu	7	5:41 2.0	12:30 4.2	18:00 2.7	. . . . . .
	W	8	0:50 4.4	6:38 2.1	13:42 4.2	19:04 2.7
	Th	9	2:12 4.4	7:38 2.0	15:17 4.5	20:04 2.4
	F	10	3:45 4.6	8:36 1.6	16:29 5.2	21:05 2.0
	S	11	4:53 5.1	9:35 1.3	17:23 5.9	22:10 1.6
	S	12	5:45 5.8	10:31 0.9	18:08 6.6	23:07 1.1
●	M	13	6:30 6.4	11:26 0.7	18:49 7.2	. . . . . .
N	Tu	14	0:01 0.7	7:11 6.8	12:19 0.6	19:30 7.5
	W	15	0:52 0.5	7:55 7.0	13:07 0.7	20:10 7.5
	Th	16	1:40 0.5	8:36 6.9	13:58 0.9	20:50 7.4
P	F	17	2:27 0.7	9:16 6.6	14:39 1.2	21:30 7.0
	S	18	3:14 0.9	9:58 6.1	15:25 1.6	22:11 6.6
	S	19	4:02 1.2	10:41 5.7	16:14 2.0	22:55 6.1
☽ E	M	20	4:54 1.5	11:30 5.2	17:05 2.3	23:47 5.6
	Tu	21	5:47 1.8	12:26 4.9	18:01 2.5	. . . . . .
	W	22	0:45 5.1	6:41 1.9	13:38 4.7	18:59 2.6
	Th	23	2:05 4.8	7:34 2.0	15:09 4.8	19:56 2.5
	F	24	3:37 4.8	8:27 1.9	16:21 5.3	20:56 2.2
	S	25	4:49 5.2	9:21 1.8	17:14 5.7	21:55 1.9
	S	26	5:41 5.6	10:14 1.6	18:00 6.3	22:51 1.5
S ○	M	27	6:25 6.0	11:05 1.5	18:38 6.7	23:44 1.3
	Tu	28	7:01 6.2	11:51 1.5	19:15 7.0	. . . . . .
	W	29	0:30 1.2	7:38 6.3	12:34 1.5	19:50 7.0
	Th	30	1:10 1.2	8:12 6.2	13:11 1.6	20:24 6.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	1:40	9:01	13:45	21:12	E	M	1	2:25	9:35	14:30	21:47		Th	1	3:05	10:15	15:27	22:30
			1.3	5.9	1.7	6.5				1.1	5.7	1.5	6.1				1.0	5.6	1.3	5.5
	S	2	2:15	9:30	14:18	21:41		Tu	2	2:59	10:05	15:05	22:18		F	2	3:45	10:50	16:13	23:10
			1.4	5.6	1.8	6.1				1.1	5.5	1.5	5.7				1.2	5.3	1.5	5.0
A	S	3	2:47	9:58	14:54	22:11		W	3	3:36	10:40	15:49	22:53	☾	S	3	4:30	11:35	17:11	. . .
			1.4	5.3	1.9	5.7				1.1	5.3	1.7	5.3				1.5	4.9	1.8	. . .
	M	4	3:24	10:30	15:31	22:43	☾	Th	4	4:19	11:19	16:38	23:32	N	S	4	0:00	5:35	12:31	18:20
			1.4	5.0	2.0	5.4				1.2	5.0	1.8	5.0				4.6	2.0	4.6	2.3
E ☾	Tu	5	4:01	11:05	16:20	23:22		F	5	5:11	12:04	17:40	. . .		M	5	1:09	6:50	13:51	19:38
			1.4	4.8	2.1	5.1				1.5	4.7	2.1	. . .				4.1	2.3	4.4	2.4
	W	6	4:52	11:40	17:15	23:59		S	6	0:24	6:14	13:09	18:51		Tu	6	3:08	8:08	15:51	20:55
			1.5	4.7	2.2	4.7				4.6	1.9	4.5	2.3				4.1	2.4	4.7	2.2
	Th	7	5:50	12:41	18:21	. . .		S	7	1:36	7:24	14:39	20:05		W	7	5:03	9:25	17:18	22:10
			1.7	4.5	2.4	. . .				4.2	2.0	4.5	2.4				4.9	2.1	5.6	1.6
	F	8	1:11	6:56	13:51	19:30	N	M	8	3:35	8:32	16:25	21:20		Th	8	5:58	10:37	18:14	23:14
			4.5	1.9	4.5	2.4				4.2	2.0	5.0	2.2				5.8	1.5	6.7	0.8
	S	9	2:36	8:04	15:26	20:38		Tu	9	5:18	9:42	17:37	22:30	P ●	F	9	6:45	11:37	18:59	. . .
			4.4	1.8	4.8	2.2				4.9	1.8	5.9	1.5				6.8	0.9	7.6	. . .
	S	10	4:19	9:05	16:57	21:42		W	10	6:19	10:50	18:31	23:33	E	S	10	0:08	7:25	12:27	19:38
			4.6	1.6	5.8	1.9				5.9	1.4	6.9	0.9				0.2	7.5	0.4	8.1
	M	11	5:35	10:10	18:00	22:45	●	Th	11	7:05	11:49	19:15	. . .		S	11	0:55	8:00	13:11	20:15
			5.3	1.4	6.2	1.4				6.7	0.9	7.6	. . .				—0.1	7.8	0.2	8.3
N	Tu	12	6:30	11:11	18:50	23:41	P	F	12	0:30	7:45	12:41	19:55		M	12	1:36	8:36	13:50	20:51
			6.0	1.1	7.0	0.8				0.4	7.3	0.5	8.1				—0.1	7.9	0.2	8.1
●	W	13	7:15	12:06	19:33	. . .		S	13	1:17	8:22	13:29	20:34		Tu	13	2:14	9:11	14:26	21:28
			6.7	0.8	7.6	. . .				0.0	7.6	0.4	8.2				0.1	7.6	0.5	7.6
	Th	14	0:36	7:55	12:57	20:12	E	S	14	2:00	9:00	14:11	21:10		W	14	2:48	9:47	15:01	22:03
			0.5	7.1	0.6	7.9				0.0	7.6	0.5	8.0				0.5	7.1	0.9	6.9
P	F	15	1:25	8:37	13:42	20:52		M	15	2:39	9:36	14:50	21:48		Th	15	3:21	10:20	15:38	22:38
			0.3	7.2	0.7	7.9				0.2	7.3	0.7	7.6				1.0	6.4	1.3	6.1
	S	16	2:10	9:15	14:25	21:30		Tu	16	3:14	10:13	15:29	22:24	☽	F	16	3:55	10:55	16:15	23:16
			0.3	7.1	0.9	7.6				0.6	6.8	1.1	6.9				1.6	5.8	1.8	5.3
	S	17	2:55	9:54	15:07	22:09		W	17	3:50	10:48	16:09	23:01	S	S	17	4:34	11:35	17:00	. . .
			0.5	6.8	1.2	7.2				1.0	6.2	1.5	6.2				2.2	5.1	2.2	. . .
E	M	18	3:37	10:31	15:48	22:49	☽	Th	18	4:28	11:25	16:52	23:43		S	18	0:00	5:19	12:24	17:57
			0.8	6.3	1.5	6.7				1.4	5.6	2.0	5.4				4.6	2.6	4.5	2.6
☽	Tu	19	4:20	11:11	16:32	23:30		F	19	5:10	12:09	17:43	. . .		M	19	1:25	6:21	13:35	19:10
			1.1	5.8	1.8	6.0				1.9	5.0	2.4	. . .				3.9	3.0	4.1	3.0
	W	20	5:07	11:54	17:21	. . .		S	20	0:32	6:00	13:02	18:45		Tu	20	4:42	7:30	16:47	20:25
			1.5	5.3	2.2	. . .				4.7	2.4	4.5	2.8				3.8	3.2	4.2	2.8
	Th	21	0:16	6:00	12:45	18:18	S	S	21	1:47	7:00	14:26	19:54		W	21	5:24	8:40	17:27	21:34
			5.4	1.8	4.9	2.5				4.1	2.8	4.3	2.9				4.4	3.1	4.8	2.5
	F	22	1:15	6:56	13:54	19:20		M	22	4:58	8:04	16:51	22:00		Th	22	5:54	9:47	18:00	22:30
			4.8	2.2	4.6	2.7				4.0	2.9	4.6	2.3				5.0	2.6	5.5	1.9
	S	23	2:40	7:55	15:45	20:25		Tu	23	5:44	9:10	17:40	23:15	A	F	23	6:25	10:40	18:35	23:15
			4.4	2.4	4.6	2.7				4.6	2.7	5.2	1.8				5.6	2.1	6.2	1.5
S	S	24	4:41	8:55	17:13	21:30		W	24	6:17	10:50	18:20	23:35	○ E	S	24	6:58	11:26	19:10	23:55
			4.5	2.4	5.1	2.4				5.2	2.3	5.9	1.5				6.2	1.6	6.6	1.1
	M	25	5:41	9:50	17:59	22:30		Th	25	6:55	11:40	19:00	23:55		S	25	7:27	12:06	19:38	. . .
			5.0	2.3	5.6	2.0				5.7	1.9	6.5	1.2				6.6	1.3	6.8	. . .
	Tu	26	6:27	10:44	18:42	23:20	○	F	26	7:26	12:10	19:33	. . .		M	26	0:30	7:55	12:42	20:05
			5.5	2.1	6.3	1.6				6.1	1.7	6.8	. . .				0.8	6.8	1.0	6.8
○	W	27	7:09	11:30	19:21	. . .	A	S	27	0:21	7:51	12:32	20:00		Tu	27	1:05	8:22	13:16	20:35
			5.9	1.9	6.7	. . .				1.2	6.4	1.4	6.9				0.7	6.7	0.9	6.7
	Th	28	0:06	7:42	12:11	19:53	E	S	28	0:55	8:20	13:07	20:29		W	28	1:40	8:55	13:52	21:05
			1.4	6.1	1.7	6.9				1.0	6.5	1.3	6.8				0.7	6.6	0.9	6.4
	F	29	0:46	8:12	12:49	20:23		M	29	1:28	8:48	13:41	20:57		Th	29	2:11	9:22	14:28	21:36
			1.2	6.3	1.6	6.9				0.9	6.4	1.2	6.6				0.8	6.3	1.0	6.0
A	S	30	1:21	8:41	13:24	20:50		Tu	30	2:00	9:14	14:13	21:25		F	30	2:48	9:57	15:05	22:11
			1.2	6.1	1.6	6.7				0.9	6.2	1.2	6.3				1.0	5.9	1.2	5.5
	S	31	1:54	9:09	13:55	21:19		W	31	2:32	9:42	14:49	21:57							
			1.2	6.0	1.6	6.4				0.9	5.9	1.2	5.9							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon: for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	3:25 4.2	9:56 25.2	16:01 3.5	22:21 26.0	
N	S	2	4:27 3.1	10:44 26.8	16:57 2.0	23:07 27.4	
○	S	3	5:20 2.0	11:30 28.2	17:49 0.8	23:54 28.0	
P	M	4	6:09 1.4	12:15 29.2	18:39 0.1	. . . . . .	
	Tu	5	0:38 28.3	6:54 1.1	12:59 29.4	19:24 —0.1	
	W	6	1:23 28.0	7:40 1.2	13:45 29.1	20:10 0.2	
	Th	7	2:10 27.3	8:22 1.7	14:32 28.2	20:58 0.9	
E	F	8	3:00 26.0	9:11 2.6	15:22 26.9	21:47 2.0	
☾	S	9	3:52 24.5	10:02 3.7	16:18 25.4	22:40 3.4	
	S	10	4:54 23.0	10:56 4.9	17:22 24.0	23:38 4.8	
	M	11	6:02 21.9	11:57 6.0	18:33 22.8	. . . . . .	
	Tu	12	0:47 6.0	7:15 21.7	13:12 6.7	19:44 22.7	
	W	13	2:06 6.5	8:26 22.0	14:34 6.4	20:52 23.2	
	Th	14	3:22 5.8	9:23 22.9	15:45 5.3	21:48 23.9	
S	F	15	4:24 4.8	10:10 23.8	16:42 4.0	22:35 24.6	
	S	16	5:12 4.1	10:53 24.6	17:29 3.2	23:16 24.8	
●	S	17	5:52 4.0	11:30 25.2	18:07 2.9	23:52 25.5	
	M	18	6:22 4.2	12:04 25.7	18:37 2.7	. . . . . .	
A	Tu	19	0:24 25.0	6:48 4.4	12:35 25.9	19:04 3.1	
	W	20	0:54 25.0	7:07 4.6	13:06 26.0	19:30 3.1	
	Th	21	1:24 24.9	7:31 4.4	13:37 26.0	19:57 3.0	
	F	22	1:55 24.7	7:58 4.2	14:12 25.8	20:27 2.9	
E	S	23	2:31 24.4	8:33 4.1	14:51 25.2	21:05 3.2	
	S	24	3:12 23.8	9:12 4.2	15:34 24.4	21:47 3.7	
☽	M	25	3:58 22.8	9:57 4.6	16:25 23.2	22:34 4.3	
	Tu	26	4:55 21.7	10:50 5.0	17:28 22.0	23:27 5.0	
	W	27	6:03 20.9	11:50 5.6	18:41 21.4	. . . . . .	
	Th	28	0:30 5.7	7:20 21.0	13:00 5.8	19:57 21.9	
N	F	29	1:40 5.9	8:33 22.2	14:20 5.4	21:05 23.2	
	S	30	2:57 5.4	9:34 24.4	15:38 4.2	22:02 25.0	
	S	31	4:08 4.0	10:27 26.4	16:45 2.5	22:54 26.7	

FEBRUARY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
○	M	1	5:07 2.5	11:15 28.1	17:38 0.8	23:40 27.9	
P	Tu	2	5:58 1.2	12:00 29.6	18:27 —0.4	. . . . . .	
	W	3	0:25 28.6	6:42 0.4	12:45 30.3	19:12 —0.9	
E	Th	4	1:08 28.7	7:26 0.2	13:28 30.3	19:52 —0.7	
	F	5	1:52 28.2	8:07 0.6	14:12 29.8	20:40 0.0	
	S	6	2:35 27.1	8:50 1.4	14:58 28.2	21:22 1.4	
	S	7	3:22 25.5	9:35 2.7	15:50 26.2	22:10 3.1	
☾	M	8	4:16 23.7	10:25 4.2	16:47 24.2	23:00 5.0	
	Tu	9	5:18 21.9	11:20 5.9	17:53 22.2	. . . . . .	
	W	10	0:04 6.8	6:32 20.8	12:28 7.2	19:10 21.5	
S	Th	11	1:26 7.9	7:52 20.6	13:56 7.6	20:26 21.7	
	F	12	2:57 7.4	8:58 21.6	15:22 6.4	21:30 22.5	
	S	13	4:07 6.2	9:50 22.8	16:25 4.9	22:18 23.4	
	S	14	4:58 4.8	10:34 23.9	17:10 3.6	23:00 24.0	
	M	15	5:37 4.2	11:12 24.9	17:49 2.9	23:35 24.6	
A ●	Tu	16	6:06 4.0	11:45 25.8	18:21 2.6	. . . . . .	
	W	17	0:05 25.1	6:30 4.0	12:14 26.6	18:44 2.6	
	Th	18	0:34 25.6	6:47 3.7	12:45 27.0	19:08 2.4	
E	F	19	1:00 25.9	7:09 3.3	13:15 27.2	19:32 2.2	
	S	20	1:30 26.0	7:34 2.8	13:50 27.2	20:00 2.0	
	S	21	2:03 25.8	8:09 2.6	14:25 26.3	20:35 2.3	
	M	22	2:42 25.2	8:47 2.8	15:05 25.6	21:17 3.0	
	Tu	23	3:24 24.2	9:30 3.4	15:53 24.0	21:59 3.8	
☽	W	24	4:17 22.8	10:21 4.2	16:51 22.6	22:51 5.0	
	Th	25	5:22 21.3	11:20 5.2	18:05 21.2	23:54 6.0	
N	F	26	6:42 20.8	12:32 5.9	19:28 21.0	. . . . . .	
	S	27	1:09 6.6	8:06 21.8	13:55 5.9	20:45 22.2	
	S	28	2:33 6.4	9:15 23.8	15:21 4.8	21:47 24.2	
	M	29	3:53 4.7	10:10 26.0	16:30 2.7	22:38 26.2	

MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
P	Tu	1	4:56 2.6	10:58 28.1	17:25 0.7	23:25 27.8	
○	W	2	5:44 0.5	11:45 29.8	18:11 —0.6	. . . . . .	
E	Th	3	0:07 28.8	6:27 0.0	12:27 30.7	18:55 —1.2	
	F	4	0:49 29.1	7:07 —0.3	13:10 30.8	19:35 —0.9	
	S	5	1:29 28.8	7:47 0.0	13:50 29.9	20:15 0.0	
	S	6	2:10 27.8	8:27 0.9	14:33 28.4	20:55 1.5	
	M	7	2:53 26.0	9:07 2.3	15:20 26.4	21:36 3.4	
	Tu	8	3:40 24.0	9:54 4.0	16:11 24.0	22:27 5.4	
☾	W	9	4:36 22.0	10:45 5.6	17:13 21.9	23:20 7.3	
S	Th	10	5:45 20.3	11:46 7.2	18:30 20.4	. . . . . .	
	F	11	0:33 8.8	7:07 19.8	13:10 8.2	19:52 20.2	
	S	12	2:17 8.9	8:24 20.5	14:47 7.4	21:04 21.3	
	S	13	3:40 7.4	9:23 21.9	15:56 5.8	21:54 22.4	
A	M	14	4:31 5.8	10:10 23.4	16:45 4.4	22:35 23.6	
	Tu	15	5:10 4.7	10:45 24.7	17:25 3.2	23:10 24.6	
	W	16	5:39 4.2	11:21 25.9	17:54 2.6	23:40 25.4	
● E	Th	17	6:00 3.6	11:52 27.0	18:18 2.2	. . . . . .	
	F	18	0:09 26.2	6:22 3.0	12:22 27.6	18:41 2.0	
	S	19	0:38 26.7	6:47 2.4	12:54 28.0	19:07 1.7	
	S	20	1:07 27.0	7:15 1.9	13:27 27.9	19:36 1.7	
	M	21	1:41 26.9	7:47 1.8	14:03 27.4	20:09 2.0	
	Tu	22	2:18 26.3	8:26 2.0	14:44 26.2	20:51 2.8	
	W	23	3:00 25.0	9:10 2.6	15:30 24.6	21:36 3.4	
N ☽	Th	24	3:51 23.5	10:02 3.7	16:28 22.9	22:27 5.0	
	F	25	4:55 21.9	11:02 4.9	17:41 21.2	23:29 6.3	
	S	26	6:19 21.0	12:12 5.8	19:07 20.8	. . . . . .	
	S	27	0:45 7.0	7:42 21.8	13:36 6.0	20:27 21.9	
	M	28	2:14 6.7	8:53 23.8	15:02 4.9	21:29 23.9	
P	Tu	29	3:35 5.0	9:50 25.9	16:14 2.9	22:20 25.9	
E	W	30	4:36 3.0	10:40 27.9	17:06 1.0	23:06 27.5	
☽	Th	31	5:24 11.2	11:25 29.5	17:51 —0.2	23:47 28.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 13.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	6:07	12:06	18:35	. . .
			0.0	30.4	—0.7	. . .
	S	2	0:26	6:47	12:47	19:13
			28.7	—0.2	30.2	—0.2
	S	3	1:05	7:27	13:27	19:52
			28.6	0.2	29.4	0.8
	M	4	1:44	8:04	14:08	20:28
			27.6	1.2	27.9	2.3
	Tu	5	2:26	8:42	14:51	21:07
			26.0	2.4	26.0	4.0
S	W	6	3:07	9:25	15:38	21:51
			24.3	3.9	23.9	5.8
☾	Th	7	3:58	10:13	16:35	22:40
			22.2	5.5	21.8	7.5
	F	8	4:58	11:08	17:47	23:40
			20.4	6.9	20.0	8.9
	S	9	6:16	12:18	19:10	. . .
			19.5	8.0	19.5	. . .
A	S	10	1:02	7:35	13:46	20:25
			9.6	19.9	8.0	20.3
	M	11	2:40	8:42	15:05	21:18
			8.6	21.2	6.9	21.6
	Tu	12	3:42	9:31	16:00	22:00
			7.4	22.8	5.4	22.9
E	W	13	4:24	10:11	16:40	22:37
			6.0	24.3	4.2	24.2
	Th	14	4:55	10:50	17:14	23:10
			4.8	25.7	3.2	25.4
●	F	15	5:25	11:24	17:42	23:40
			3.6	26.9	2.5	26.5
	S	16	5:54	11:57	18:10	. . .
			2.6	27.7	2.0	. . .
	S	17	0:12	6:23	12:31	18:42
			27.2	0.9	28.0	0.7
	M	18	0:45	6:56	13:07	19:15
			27.6	1.4	28.0	1.7
	Tu	19	1:22	7:32	13:44	19:50
			27.5	1.3	27.5	2.0
N	W	20	2:00	8:13	14:27	20:33
			26.9	1.7	26.4	2.9
	Th	21	2:45	9:00	15:15	21:20
			25.7	2.4	24.8	4.0
	F	22	3:36	9:53	16:12	22:12
			24.2	3.5	23.0	5.2
☽	S	23	4:39	10:52	17:23	23:15
			22.7	4.6	21.6	6.3
	S	24	5:56	12:00	18:46	. . .
			21.8	5.4	21.1	. . .
	M	25	0:28	7:17	13:20	20:05
			6.9	22.3	5.7	22.0
P	Tu	26	1:52	8:30	14:41	21:08
			6.6	23.9	4.8	23.7
E	W	27	3:10	9:28	15:48	22:00
			5.2	25.6	3.3	25.4
	Th	28	4:12	10:18	16:43	22:44
			3.4	27.3	1.9	26.8
○	F	29	5:03	11:04	17:30	23:26
			2.0	28.4	1.0	27.6
	S	30	5:48	11:47	18:14	. . .
			1.0	29.0	0.7	. . .

MAY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	6:30	12:25	18:52	. . .
			0.8	28.8	1.2	. . .
	M	2	0:43	7:08	13:06	19:30
			27.6	1.1	28.0	2.2
S	Tu	3	1:20	7:46	13:45	20:05
			26.9	1.8	26.8	3.4
	W	4	2:00	8:22	14:25	20:40
			25.8	2.8	25.2	4.6
	Th	5	2:40	9:00	15:09	21:20
			24.2	4.0	23.5	6.0
	F	6	3:24	9:43	16:00	22:05
			22.8	5.1	21.7	7.4
☾	S	7	4:17	10:35	17:00	22:52
			21.2	6.2	20.3	8.3
A	S	8	5:21	11:30	18:13	23:52
			20.2	7.0	19.5	8.4
	M	9	6:36	12:35	19:27	. . .
			20.0	7.4	19.8	. . .
	Tu	10	0:58	7:47	13:44	20:28
			8.9	20.9	7.2	20.9
E	W	11	2:12	8:45	14:47	21:16
			8.2	22.2	6.4	22.2
	Th	12	3:13	9:32	15:42	21:57
			6.9	23.6	5.2	23.6
	F	13	4:00	10:14	16:26	22:35
			5.4	25.0	4.0	25.1
	S	14	4:44	10:54	17:06	23:12
			4.0	26.2	3.1	26.3
●	S	15	5:24	11:32	17:42	23:48
			2.7	27.2	2.4	27.3
	M	16	6:02	12:10	18:20	. . .
			1.8	27.7	2.0	. . .
	Tu	17	0:27	6:43	12:49	18:59
			27.8	1.4	27.7	2.0
N	W	18	1:05	7:23	13:30	19:37
			27.9	1.2	27.2	2.3
	Th	19	1:48	8:07	14:14	20:21
			27.4	1.5	26.3	2.9
	F	20	2:34	8:54	15:05	21:12
			26.4	2.0	25.0	3.9
	S	21	3:26	9:46	16:00	22:05
			25.2	3.0	23.6	4.8
☽	S	22	4:27	10:44	17:17	23:05
P			23.9	3.8	22.4	5.7
	M	23	5:32	11:47	18:23	. . .
			23.0	4.6	21.8	. . .
E	Tu	24	0:10	6:51	12:59	19:37
			6.2	23.0	5.0	22.3
	W	25	1:26	8:02	14:13	20:42
			6.2	24.0	4.8	23.4
	Th	26	2:42	9:05	15:22	21:36
			5.4	25.0	4.0	24.6
	F	27	3:47	9:57	16:22	22:24
			4.2	26.2	3.1	25.6
	S	28	4:43	10:53	17:14	23:06
			3.0	26.9	2.4	26.4
○	S	29	5:32	11:28	17:58	23:47
			2.2	27.2	2.3	26.7
	M	30	6:13	12:08	18:37	. . .
			2.0	27.0	2.7	. . .
S	Tu	31	0:25	6:55	12:47	19:14
			26.6	2.1	26.4	3.4

JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	W	1	1:02	7:30	13:25	19:45
			26.2	2.6	25.8	4.2
	Th	2	1:38	8:06	14:02	20:15
			25.5	3.2	24.6	5.1
	F	3	2:15	8:40	14:42	20:50
			24.6	4.0	23.5	5.9
	S	4	2:56	9:18	15:25	21:30
			23.6	4.6	22.2	6.6
A	S	5	3:42	10:02	16:15	22:12
			22.6	5.4	21.2	7.1
☾	M	6	4:36	10:50	17:14	23:00
			21.6	5.8	20.4	7.4
E	Tu	7	5:37	11:41	18:20	23:57
			21.0	6.2	20.1	7.5
	W	8	6:44	12:37	19:25	. . .
			21.0	6.3	20.5	. . .
	Th	9	0:56	7:50	13:36	20:24
			7.2	21.8	6.1	21.6
	F	10	2:00	8:47	14:38	21:15
			6.6	22.8	5.6	22.8
	S	11	3:04	9:37	15:37	22:01
			5.6	24.0	4.8	24.4
	S	12	4:03	10:24	16:30	22:46
			4.4	25.2	3.9	25.8
●	M	13	4:56	11:08	17:17	23:28
			3.0	26.5	3.0	27.0
N	Tu	14	5:44	11:52	18:02	. . .
			2.0	27.2	2.4	. . .
	W	15	0:10	6:31	12:34	18:45
			27.9	1.2	27.5	2.1
	Th	16	0:52	7:16	13:18	19:30
			28.2	1.0	27.3	2.2
P	F	17	1:38	8:02	14:04	20:15
			29.1	1.0	26.7	2.5
	S	18	2:24	8:49	14:54	21:02
			27.5	1.4	25.7	3.1
	S	19	3:16	9:39	15:47	21:55
			26.5	2.0	24.5	3.9
☽	M	20	4:11	10:32	16:47	22:49
E			25.4	2.9	23.4	4.6
	Tu	21	5:14	11:30	17:55	23:47
			24.2	3.8	22.5	5.4
	W	22	6:22	12:32	19:07	. . .
			23.6	4.8	22.4	. . .
	Th	23	0:56	7:32	13:44	20:15
			5.9	23.6	5.2	22.8
	F	24	2:11	8:39	14:57	21:14
			5.8	24.2	5.1	23.5
	S	25	3:23	9:37	16:04	22:05
			5.1	24.8	4.4	24.3
	S	26	4:27	10:27	17:00	22:50
			4.1	25.4	3.8	25.0
S	M	27	5:20	11:12	17:47	23:30
○			3.2	25.6	3.5	25.5
	Tu	28	6:04	11:52	18:26	. . .
			2.8	25.8	3.8	. . .
	W	29	0:08	6:43	12:32	19:00
			25.8	2.8	25.2	4.2
	Th	30	0:44	7:18	13:06	19:29
			25.7	3.1	24.8	4.7

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 13.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	JULY.					
	F	1	1:20 25.2	8:10 3.3	13:40 24.1	20:20 4.8
	S	2	1:53 24.9	8:45 3.7	14:15 23.7	20:50 5.8
A	S	3	2:27 24.6	9:06 4.6	14:48 23.0	21:18 6.5
	M	4	3:04 24.0	9:50 5.2	15:27 22.5	21:50 6.8
E ☾	Tu	5	3:48 23.5	10:30 5.7	16:14 22.0	22:31 6.9
	W	6	4:38 22.7	11:15 6.1	17:09 21.2	23:22 7.1
	Th	7	5:39 21.9	12:07 6.5	18:15 20.8	. . . . . .
	F	8	0:24 7.2	6:45 21.5	13:07 6.7	19:23 21.1
	S	9	1:36 7.0	7:55 21.9	14:18 6.3	20:32 22.0
	S	10	2:50 6.1	9:03 22.9	15:24 5.6	21:30 23.6
	M	11	3:59 4.6	9:57 24.2	16:25 4.4	22:22 25.2
N	Tu	12	4:56 3.0	10:48 25.9	17:20 3.0	23:10 26.7
●	W	13	5:47 1.4	11:35 26.8	18:07 2.0	23:55 27.9
	Th	14	6:37 0.4	12:20 27.4	18:53 1.4	. . . . . .
P	F	15	0:40 28.3	7:24 —0.1	13:05 27.6	19:39 1.3
	S	16	1:25 28.8	8:10 —0.2	13:50 27.2	20:24 1.6
	S	17	2:10 28.6	8:55 0.2	14:35 26.5	21:09 2.0
E	M	18	2:56 27.9	9:42 1.2	15:24 25.4	21:57 3.0
☽	Tu	19	3:48 26.6	10:32 2.2	16:17 24.0	22:49 4.0
	W	20	4:45 25.1	11:26 3.5	17:18 22.8	23:47 4.9
	Th	21	5:50 23.8	12:27 4.6	18:28 21.9	. . . . . .
	F	22	0:51 5.6	7:00 22.8	13:36 5.4	19:42 21.9
	S	23	2:03 5.5	8:10 22.8	14:45 5.3	20:47 22.2
S	S	24	3:12 4.8	9:17 23.2	15:50 4.5	21:40 23.1
	M	25	4:13 3.7	10:09 23.9	16:45 3.6	22:31 24.0
	Tu	26	5:07 2.7	10:55 24.3	17:34 3.0	23:13 24.6
○	W	27	5:54 1.9	11:37 24.6	18:17 2.7	23:52 25.1
	Th	28	6:35 1.6	12:12 24.7	18:55 2.9	. . . . . .
	F	29	0:25 25.4	7:13 1.9	12:45 24.6	19:27 3.4
A	S	30	0:59 25.5	7:47 2.6	13:16 24.4	19:56 4.3
	S	31	1:30 25.6	8:17 3.4	13:47 24.3	20:20 5.0

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	AUGUST.					
E	M	1	2:00 25.6	8:46 4.2	14:17 24.2	20:44 5.4
	Tu	2	2:35 25.4	9:12 4.3	14:51 24.0	21:11 5.5
	W	3	3:14 24.4	9:46 5.0	15:32 23.4	21:49 5.5
☾	Th	4	3:59 23.9	10:25 5.5	16:20 22.6	22:37 5.8
	F	5	4:52 22.8	11:14 6.2	17:20 21.6	23:35 6.3
	S	6	6:00 21.8	12:16 6.8	18:35 21.0	. . . . . .
	S	7	0:49 6.7	7:15 21.5	13:31 6.5	19:50 21.5
N	M	8	2:12 6.3	8:30 22.1	14:50 6.4	21:04 23.1
	Tu	9	3:29 4.8	9:35 23.8	16:00 4.8	22:00 25.1
	W	10	4:34 2.8	10:28 25.4	16:58 3.0	22:51 26.9
●	Th	11	5:28 1.0	11:17 26.8	17:50 1.4	23:39 28.4
P	F	12	6:18 —0.3	12:02 27.9	18:36 0.4	. . . . . .
	S	13	0:24 29.4	7:03 —1.0	12:47 28.2	19:20 0.0
E	S	14	1:08 29.8	7:50 —1.1	13:30 28.0	20:05 0.2
	M	15	1:52 29.6	8:33 —0.5	14:14 27.4	20:48 1.0
	Tu	16	2:35 28.6	9:18 0.8	14:59 26.1	21:34 2.2
	W	17	3:24 27.0	10:07 2.3	15:47 24.6	22:23 3.5
☽	Th	18	4:17 25.2	10:59 3.9	16:44 22.8	23:19 4.8
	F	19	5:20 23.4	12:00 5.4	17:54 21.4	. . . . . .
	S	20	0:25 5.8	6:32 22.0	13:10 6.4	19:10 20.8
S	S	21	1:37 6.0	7:48 21.7	14:22 6.3	20:23 21.4
	M	22	2:47 5.4	8:58 22.2	15:28 5.4	21:23 22.4
	Tu	23	3:52 4.3	9:52 23.0	16:25 4.3	22:11 23.5
	W	24	4:45 3.1	10:38 23.9	17:12 3.3	22:54 24.5
	Th	25	5:32 2.0	11:15 24.3	17:53 2.6	23:30 25.2
○	F	26	6:10 1.5	11:50 24.8	18:30 2.5	. . . . . .
A	S	27	0:04 25.8	6:47 1.8	12:20 25.0	19:02 2.9
E	S	28	0:34 26.0	7:18 2.3	12:50 25.2	19:26 3.6
	M	29	1:05 26.4	7:45 3.1	13:17 25.3	19:50 4.2
	Tu	30	1:34 26.4	8:12 3.8	13:46 25.3	20:11 4.4
	W	31	2:07 26.1	8:37 4.3	14:20 25.0	20:40 4.5

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	SEPTEMBER.					
	Th	1	2:43 25.5	9:07 4.7	14:58 24.4	21:18 4.6
	F	2	3:26 24.6	9:45 5.2	15:45 23.6	22:05 5.2
☾	S	3	4:18 23.2	10:35 6.1	16:42 22.3	23:05 5.9
N	S	4	5:24 21.8	11:37 7.0	17:55 21.2	. . . . . .
	M	5	0:20 6.6	6:45 21.0	12:57 7.5	19:18 21.3
	Tu	6	1:49 6.2	8:06 21.8	14:24 6.8	20:37 23.0
	W	7	3:06 4.8	9:15 23.4	15:38 4.9	21:40 25.2
	Th	8	4:12 2.6	10:10 25.4	16:37 2.7	22:31 27.2
P ●	F	9	5:06 0.7	10:59 27.1	17:30 0.9	23:20 28.9
E	S	10	5:56 —1.0	11:42 28.3	18:15 —0.3	. . . . . .
	S	11	0:02 30.0	6:42 —1.5	12:26 28.8	19:00 —0.8
	M	12	0:46 30.4	7:25 —1.4	13:07 28.7	19:42 —0.5
	Tu	13	1:30 30.0	8:08 —0.5	13:49 27.8	20:25 0.6
	W	14	2:12 28.6	8:53 1.0	14:32 26.4	21:10 2.0
	Th	15	2:56 26.8	9:40 2.9	15:17 24.6	22:00 3.6
☽	F	16	3:47 24.6	10:30 4.8	16:10 22.7	22:53 5.0
S	S	17	4:48 22.6	11:30 6.4	17:17 21.0	23:58 6.1
	S	18	6:02 21.1	12:40 7.2	18:35 20.2	. . . . . .
	M	19	1:10 6.5	7:22 20.7	13:55 7.2	19:52 20.7
	Tu	20	2:22 5.9	8:35 21.3	15:00 6.2	20:56 21.9
	W	21	3:25 4.7	9:29 22.3	15:58 5.0	21:45 23.2
	Th	22	4:18 3.4	10:12 23.4	16:44 3.7	22:27 24.4
A	F	23	5:02 2.4	10:50 24.1	17:23 2.8	23:02 25.5
○ E	S	24	5:42 1.7	11:22 25.0	18:00 2.4	23:37 26.1
	S	25	6:16 1.7	11:53 25.7	18:30 2.5	. . . . . .
	M	26	0:07 26.7	6:47 2.1	12:22 26.0	18:57 3.0
	Tu	27	0:38 27.0	7:14 3.0	12:50 26.1	19:22 3.4
	W	28	1:08 26.8	7:38 3.6	13:20 26.1	19:47 3.7
	Th	29	1:42 26.5	8:06 4.2	13:53 25.9	20:18 4.0
	F	30	2:18 25.8	8:37 4.8	14:32 25.2	20:57 4.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 13.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	3:00 24.7	9:17 5.4	15:19 24.0	21:47 5.0	
N ☾	S	2	3:53 23.2	10:07 6.4	16:17 22.8	22:50 5.8	
	M	3	5:00 21.9	11:14 7.4	17:28 21.5	. . .	
	Tu	4	0:05 6.4	6:22 20.8	12:36 7.8	18:55 21.5	
	W	5	1:30 6.0	7:45 21.5	14:04 6.8	20:12 23.0	
	Th	6	2:45 4.4	8:57 23.3	15:16 4.8	21:18 25.4	
	F	7	3:50 2.4	9:50 25.4	16:14 2.6	22:10 27.4	
P E	S	8	4:44 0.6	10:38 27.1	17:06 0.8	22:57 28.9	
●	S	9	5:32 —0.8	11:21 28.3	17:52 —0.5	23:42 29.8	
	M	10	6:17 —1.3	12:01 29.9	18:36 —0.9	. . .	
	Tu	11	0:24 30.0	7:02 —1.0	12:44 28.0	19:19 —0.4	
	W	12	1:05 29.4	7:45 0.1	13:24 27.7	20:02 0.6	
	Th	13	1:48 28.0	8:28 1.8	14:05 26.4	20:48 2.1	
S	F	14	2:30 26.1	9:14 3.6	14:50 24.6	21:35 3.8	
	S	15	3:17 24.0	10:03 5.5	15:36 22.6	22:29 5.2	
☽	S	16	4:14 22.0	11:00 7.0	16:38 21.1	23:29 6.3	
	M	17	5:26 20.2	12:05 7.9	17:54 20.0	. . .	
	Tu	18	0:38 6.7	6:46 19.8	13:18 8.0	19:10 20.2	
	W	19	1:46 6.4	8:00 20.4	14:24 7.2	20:18 21.4	
A	Th	20	2:49 5.4	8:57 21.8	15:20 5.9	21:10 22.8	
	F	21	3:42 4.2	9:40 22.8	16:07 4.6	21:54 24.1	
E	S	22	4:28 3.1	10:18 24.0	16:48 3.4	22:30 25.3	
	S	23	5:07 2.4	10:52 25.0	17:25 2.7	23:07 26.0	
○	M	24	5:42 2.1	11:24 25.9	17:58 2.4	23:40 26.8	
	Tu	25	6:16 2.3	11:55 26.5	18:30 2.4	. . .	
	W	26	0:13 27.1	6:46 2.8	12:26 26.8	19:00 2.8	
	Th	27	0:46 27.0	7:15 3.5	13:00 26.4	19:32 3.1	
	F	28	1:22 26.6	7:44 4.1	13:36 26.4	20:07 3.5	
N	S	29	2:00 25.8	8:19 4.8	14:16 25.7	20:50 4.1	
	S	30	2:44 24.7	9:01 5.7	15:02 24.6	21:42 4.8	
☾	M	31	3:35 23.2	9:53 6.6	16:00 23.4	22:42 5.6	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	4:40 21.8	11:00 7.4	17:10 22.0	23:54 5.8	
	W	2	6:02 20.9	12:20 7.6	18:32 22.0	. . .	
	Th	3	1:11 5.4	7:23 21.5	13:42 6.6	19:50 23.3	
E	F	4	2:22 4.2	8:33 23.0	14:52 4.7	20:54 25.2	
P	S	5	3:24 2.6	9:28 25.0	15:50 2.8	21:49 26.9	
	S	6	4:20 1.0	10:16 26.6	16:43 1.2	22:36 28.0	
●	M	7	5:10 0.0	11:00 27.6	17:32 0.1	23:20 28.8	
	Tu	8	5:56 —0.3	11:42 28.2	18:15 —0.3	. . .	
	W	9	0:02 29.0	6:41 —0.1	12:22 28.0	19:00 0.0	
	Th	10	0:45 28.3	7:25 0.5	13:02 27.4	19:44 1.0	
S	F	11	1:26 27.0	8:07 2.4	13:42 26.2	20:28 2.3	
	S	12	2:08 25.4	8:50 4.1	14:22 24.8	21:13 3.7	
	S	13	2:50 23.7	9:34 5.8	15:06 23.2	22:02 5.1	
	M	14	3:38 21.9	10:24 7.2	15:58 21.8	22:56 6.2	
☽	Tu	15	4:38 20.3	11:20 8.2	17:02 20.5	23:56 6.9	
	W	16	5:52 19.5	12:22 8.5	18:17 20.0	. . .	
A	Th	17	1:00 6.9	7:05 19.3	13:30 8.1	19:25 20.7	
E	F	18	2:00 6.4	8:08 20.6	14:28 7.1	20:25 21.9	
	S	19	2:56 5.5	8:59 21.9	15:20 5.8	21:16 23.2	
	S	20	3:46 4.5	9:42 23.1	16:07 4.6	21:59 24.5	
	M	21	4:30 3.6	10:20 24.4	16:49 3.4	22:35 25.5	
	Tu	22	5:10 3.0	10:56 25.6	17:28 2.6	23:15 26.4	
○	W	23	5:47 2.6	11:31 26.4	18:06 2.2	23:52 27.0	
	Th	24	6:22 2.8	12:07 27.1	18:44 2.1	. . .	
N	F	25	0:28 27.0	6:59 3.1	12:44 27.4	19:23 2.2	
	S	26	1:07 26.7	7:34 3.7	13:24 27.2	20:04 2.6	
	S	27	1:48 26.0	8:14 4.4	14:06 26.6	20:48 3.2	
	M	28	2:32 25.0	8:56 5.2	14:52 25.8	21:38 4.0	
	Tu	29	3:22 23.7	9:48 6.0	15:46 24.2	22:35 4.6	
☾	W	30	4:23 22.4	10:48 6.6	16:52 23.2	23:38 5.0	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	5:37 21.5	12:00 6.7	18:08 22.7	. . .	
E	F	2	0:48 4.9	6:55 21.8	13:12 6.2	19:21 23.3	
P	S	3	1:56 4.4	8:06 22.6	14:26 5.0	20:28 24.5	
	S	4	3:00 3.2	9:07 24.0	15:27 3.5	21:27 25.8	
	M	5	3:59 2.2	9:55 25.3	16:24 2.1	22:17 26.8	
	Tu	6	4:52 1.3	10:42 26.3	17:14 1.0	23:02 27.3	
●	W	7	5:40 0.7	11:25 26.9	18:02 0.5	23:45 27.5	
S	Th	8	6:25 0.9	12:05 27.1	18:46 0.6	. . .	
	F	9	0:27 27.0	7:07 1.5	12:45 26.8	19:28 1.2	
	S	10	1:07 26.2	7:49 2.7	13:23 26.2	20:11 2.2	
	S	11	1:47 25.0	8:27 4.1	14:00 25.2	20:53 3.4	
	M	12	2:26 23.8	9:06 5.6	14:40 24.0	21:33 4.8	
	Tu	13	3:05 22.4	9:45 6.8	15:22 23.0	22:18 5.8	
☽	W	14	3:50 21.2	10:27 7.8	16:12 21.9	23:05 6.6	
A E	Th	15	4:46 20.2	11:15 8.4	17:10 21.0	23:58 7.1	
	F	16	5:52 19.6	12:14 8.5	18:18 20.5	. . .	
	S	17	0:58 7.2	7:00 19.8	13:19 8.2	19:26 21.0	
	S	18	2:00 7.0	8:04 20.6	14:23 7.2	20:27 22.0	
	M	19	2:57 6.2	9:00 22.0	15:21 5.8	21:22 23.2	
	Tu	20	3:52 5.0	9:47 23.4	16:14 4.4	22:09 24.4	
	W	21	4:38 4.0	10:30 25.0	17:02 3.0	22:52 25.8	
○	Th	22	5:24 3.1	11:10 26.3	17:48 1.9	23:34 26.7	
N	F	23	6:05 2.6	11:50 27.4	18:31 1.3	. . .	
	S	24	0:14 27.1	6:47 2.4	12:32 28.0	19:12 1.1	
	S	25	0:55 27.1	7:26 2.6	13:14 28.1	19:57 1.2	
	M	26	1:39 26.7	8:09 3.0	13:57 27.9	20:43 1.8	
P	Tu	27	2:22 25.9	8:52 3.7	14:42 27.0	21:30 2.4	
	W	28	3:09 24.8	9:40 4.2	15:32 25.9	22:20 3.2	
E ☾	Th	29	4:02 23.6	10:33 5.1	16:32 24.6	23:17 4.0	
	F	30	5:07 22.4	11:34 5.8	17:39 23.4	. . .	
	S	31	0:20 4.7	6:22 21.7	12:43 6.0	18:52 22.9	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 13.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	3:52 1.8	10:07 9.6	16:20 1.7	22:34 9.8
N	S	2	4:46 1.3	11:02 10.2	17:15 1.1	23:28 10.3
○	S	3	5:40 0.9	11:54 10.8	18:06 0.5	. . . . . .
P	M	4	0:20 10.9	6:32 0.4	12:45 11.3	18:57 —0.1
	Tu	5	1:10 11.2	7:18 0.2	13:31 11.6	19:44 —0.4
	W	6	1:57 11.3	8:05 0.1	14:17 11.8	20:31 —0.5
	Th	7	2:44 11.3	8:51 0.1	15:04 11.7	21:19 —0.4
E	F	8	3:31 11.1	9:40 0.4	15:54 11.5	22:08 —0.1
☾	S	9	4:20 10.7	10:30 0.7	16:43 11.1	23:00 0.3
	S	10	5:12 10.3	11:24 1.2	17:37 10.6	23:56 0.8
	M	11	6:08 9.9	12:22 1.5	18:34 10.2	. . . . . .
	Tu	12	0:55 1.3	7:08 9.6	13:21 1.8	19:35 9.8
	W	13	1:56 1.6	8:11 9.5	14:25 1.9	20:40 9.6
	Th	14	2:57 1.8	9:18 9.5	15:27 1.8	21:42 9.6
S	F	15	3:57 1.7	10:12 9.7	16:25 1.6	22:40 9.8
	S	16	4:51 1.5	11:02 10.0	17:17 1.2	23:31 10.0
●	S	17	5:41 1.3	11:52 10.4	18:03 0.9	. . . . . .
	M	18	0:19 10.2	6:24 1.1	12:34 10.7	18:45 0.7
A	Tu	19	1:59 10.3	7:02 1.0	13:12 10.8	19:24 0.6
	W	20	1:35 10.3	7:37 1.0	13:50 10.9	20:00 0.6
	Th	21	2:10 10.2	8:12 1.1	14:25 10.8	20:36 0.7
	F	22	2:46 10.1	8:47 1.2	15:02 10.6	21:13 0.8
E	S	23	3:20 10.0	9:24 1.3	15:38 10.4	21:50 1.0
	S	24	3:59 9.8	10:04 1.6	16:18 10.0	22:32 1.3
☽	M	25	4:40 9.7	10:50 1.9	17:04 9.7	23:19 1.6
	Tu	26	5:27 9.4	11:39 2.1	17:52 9.4	. . . . . .
	W	27	0:10 2.0	6:24 9.2	12:36 2.3	18:50 9.1
	Th	28	1:11 2.2	7:29 9.0	13:44 2.4	20:00 9.0
N	F	29	2:18 2.3	8:37 9.1	14:53 2.2	21:08 9.2
	S	30	3:25 2.0	9:43 9.5	16:00 1.8	22:15 9.6
	S	31	4:26 1.5	10:44 10.2	17:00 1.1	23:14 10.3

FEBRUARY.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	5:25 0.9	11:38 10.9	17:52 0.3	. . . . . .
P	Tu	2	0:07 10.8	6:17 0.4	12:30 11.5	18:42 —0.3
	W	3	0:56 11.3	7:03 0.0	13:16 12.0	19:28 —0.7
E	Th	4	1:42 11.5	7:49 —0.2	14:00 12.1	20:15 —0.8
	F	5	2:27 11.5	8:33 —0.2	14:46 12.1	21:00 —0.7
	S	6	3:12 11.3	9:19 0.0	15:30 11.8	21:45 —0.3
	S	7	3:57 11.0	10:07 0.4	16:18 11.3	22:34 0.2
☾	M	8	4:45 10.5	10:55 0.9	17:18 10.7	23:24 0.8
	Tu	9	5:36 10.0	11:48 1.5	18:02 10.0	. . . . . .
	W	10	0:20 1.5	6:32 9.5	12:46 1.9	19:02 9.4
S	Th	11	1:20 2.0	7:35 9.2	13:52 2.2	20:07 9.2
	F	12	2:22 2.2	8:39 9.1	14:57 2.2	21:13 9.0
	S	13	3:26 2.3	9:41 9.3	16:00 2.0	22:15 9.2
	S	14	4:25 2.0	10:37 9.6	16:58 1.7	23:09 9.5
	M	15	5:16 1.7	11:25 10.1	17:40 1.3	23:55 9.8
A ●	Tu	16	5:58 1.4	12:08 10.5	18:20 1.0	. . . . . .
	W	17	0:33 10.0	6:36 1.1	12:47 10.8	18:59 0.7
	Th	18	1:08 10.2	7:10 0.9	13:32 10.9	19:33 0.5
E	F	19	1:41 10.4	7:45 0.8	13:58 11.0	20:08 0.4
	S	20	2:15 10.4	8:19 0.9	14:32 10.9	20:44 0.5
	S	21	2:52 10.4	8:54 0.9	15:09 10.7	21:20 0.7
	M	22	3:30 10.3	9:35 1.1	15:48 10.4	22:00 0.9
	Tu	23	4:07 10.1	10:18 1.4	16:33 10.0	22:45 1.3
☽	W	24	4:56 9.8	11:05 1.7	17:22 9.6	23:37 1.7
	Th	25	5:54 9.4	12:07 2.1	18:22 9.3	. . . . . .
N	F	26	0:40 2.1	7:00 9.1	13:17 2.3	19:32 9.0
	S	27	1:50 2.3	8:11 9.1	14:31 2.2	20:45 9.1
	S	28	3:02 2.1	9:22 9.6	15:40 1.7	21:56 9.6
	M	29	4:10 1.6	10:26 10.2	16:44 1.0	22:58 10.2

MARCH.

Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	5:09 0.9	11:20 11.0	17:36 0.2	23:52 10.9
○	W	2	6:00 0.2	12:11 11.7	18:25 —0.4	. . . . . .
E	Th	3	0:40 11.4	6:47 —0.2	13:00 12.2	19:10 —0.8
	F	4	1:25 11.7	7:30 —0.4	13:42 12.3	19:55 —0.9
	S	5	2:07 11.7	8:13 —0.4	14:25 12.3	20:37 —0.7
	S	6	2:50 11.5	8:56 —0.2	15:09 11.9	21:22 —0.3
	M	7	3:33 11.1	9:41 0.3	15:54 11.3	22:08 0.3
	Tu	8	4:18 10.6	10:30 0.8	16:40 10.6	22:54 1.0
☾	W	9	5:05 10.0	11:19 1.4	17:31 9.9	23:45 1.7
S	Th	10	5:57 9.5	12:13 2.0	18:28 9.2	. . . . . .
	F	11	0:43 2.3	6:58 9.0	13:17 2.4	19:32 8.7
	S	12	1:46 2.7	8:02 8.8	14:24 2.6	20:40 8.5
	S	13	2:53 2.7	9:08 8.9	15:29 2.4	21:45 8.7
A	M	14	3:54 2.4	10:05 9.3	16:24 2.1	22:40 9.1
	Tu	15	4:45 2.0	10:55 9.8	17:10 1.6	23:25 9.5
	W	16	5:27 1.6	11:40 10.2	17:50 1.2	. . . . . .
● E	Th	17	0:02 9.9	6:06 1.2	12:18 10.6	18:30 0.8
	F	18	0:37 10.2	6:41 0.9	12:54 10.9	19:05 0.5
	S	19	1:12 10.5	7:16 0.7	13:30 11.0	19:40 0.3
	S	20	1:46 10.7	7:51 0.6	14:04 11.1	20:15 0.3
	M	21	2:22 10.7	8:30 0.6	14:42 10.9	20:54 0.4
	Tu	22	3:02 10.6	9:10 0.7	15:22 10.7	21:35 0.7
	W	23	3:54 10.4	9:55 1.0	16:08 10.3	22:20 1.1
N ☽	Th	24	4:31 10.1	10:45 1.4	16:58 9.9	23:14 1.6
	F	25	5:30 9.7	11:45 1.8	18:00 9.4	. . . . . .
	S	26	0:17 2.0	6:35 9.3	12:54 2.1	19:11 9.1
	S	27	1:28 2.3	7:47 9.3	14:10 2.0	20:27 9.2
	M	28	2:41 2.1	9:00 9.7	15:20 1.5	21:37 9.7
P	Tu	29	3:48 1.5	10:04 10.4	16:22 0.8	22:39 10.3
E	W	30	4:49 0.8	11:00 11.1	17:16 0.1	23:31 10.9
○	Th	31	5:40 0.2	11:50 11.8	18:04 —0.4	. . . . . .

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a^h m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	2:50	9:22	15:14	21:48			Tu	1	4:20	11:05	16:55	23:37			Th	1	5:08	11:56	17:48	. . .
			19.3	3.1	19.0	3.3					17.5	3.7	17.0	4.2					17.2	3.3	16.6	. . .
N	S	2	3:40	10:16	16:12	22:47			W	2	5:31	12:12	18:12	. . .		E	F	2	0:27	6:25	13:02	19:03
☾			18.4	3.5	17.9	3.9					16.7	3.9	16.4	. . .					3.9	16.8	3.4	16.5
	M	3	4:40	11:17	17:18	23:53			Th	3	0:47	6:50	13:25	19:32		P	S	3	1:37	7:38	14:14	20:14
			17.3	4.0	16.8	4.2					4.2	16.5	3.7	16.5					3.7	17.0	3.0	17.0
	Tu	4	5:55	12:27	18:36	. . .		E	F	4	2:03	8:05	14:40	20:41			S	4	2:49	8:43	15:25	21:15
			16.4	4.1	16.3	. . .					3.8	17.2	3.0	17.5					3.3	17.8	2.4	17.8
	W	5	1:05	7:16	13:45	19:56		P	S	5	3:16	9:08	15:50	21:37			M	5	3:58	9:38	16:27	22:07
			4.3	16.4	3.9	16.7					2.9	18.3	1.9	18.6					2.4	18.5	1.6	18.5
	Th	6	2:26	8:30	15:07	21:04			S	6	4:20	10:00	16:49	22:27			Tu	6	4:58	10:30	17:24	22:52
			3.8	17.3	3.0	17.9					1.8	19.3	0.9	19.4					1.7	18.9	1.0	18.8
	F	7	3:40	9:30	16:12	22:00		●	M	7	5:15	10:48	17:40	23:10		●	W	7	5:50	11:12	18:14	23:30
			2.7	18.7	1.7	19.0					0.9	20.0	0.3	19.9					1.1	19.1	0.7	19.0
P	S	8	4:44	10:20	17:10	22:46			Tu	8	6:02	11:27	18:26	23:50		S	Th	8	6:37	11:50	18:58	. . .
E			1.4	19.8	0.5	20.0					0.5	20.4	0.1	20.1					1.0	19.2	0.9	. . .
●	S	9	5:35	11:07	18:00	23:29			W	9	6:48	12:07	19:11	. . .			F	9	0:10	7:20	12:27	19:40
			0.5	20.7	—0.3	20.7					0.5	20.3	0.4	. . .					19.0	1.2	19.0	1.5
	M	10	6:21	11:47	18:45	. . .			Th	10	0:27	7:32	12:46	19:53			S	10	0:45	8:00	13:04	20:17
			0.0	21.2	—0.4	. . .					20.0	0.8	20.0	1.0					18.9	1.8	18.8	2.2
	Tu	11	0:09	7:05	12:29	19:28		S	F	11	1:03	8:11	13:24	20:33			S	11	1:18	8:37	13:40	20:53
			21.0	—0.1	21.2	—0.2					19.6	1.6	19.5	1.8					18.7	2.5	18.4	3.1
	W	12	0:45	7:47	13:07	20:10			S	12	1:42	8:51	14:02	21:11			M	12	1:58	9:10	14:19	21:27
			20.8	0.3	20.8	0.5					19.0	2.4	18.8	2.9					18.4	3.2	17.9	3.8
	Th	13	1:26	8:28	13:47	20:51			S	13	2:22	9:32	14:47	21:52			Tu	13	2:40	9:45	15:02	22:02
			20.3	1.2	20.1	1.5					18.4	3.2	17.8	3.8					17.9	3.7	17.3	4.4
S	F	14	2:05	9:10	14:28	21:30			M	14	3:07	10:13	15:34	22:38		☽	W	14	3:25	10:26	15:52	22:47
			19.5	2.0	19.0	2.5					17.4	4.0	16.8	4.6					17.8	4.1	16.6	4.7
	S	15	2:48	9:52	15:14	22:17		☽	Tu	15	3:58	11:04	16:29	23:32		A	Th	15	4:17	11:13	16:46	23:34
			18.5	3.1	17.9	3.6					16.4	4.5	15.8	5.0		E			16.6	4.4	16.0	5.0
☽	S	16	3:37	10:40	16:07	23:12			W	16	5:00	12:00	17:37	. . .			F	16	5:16	12:02	17:50	. . .
			17.1	4.0	16.5	4.5					15.6	4.8	15.1	. . .					16.1	4.4	15.6	. . .
	M	17	4:36	11:39	17:12	. . .		A	Th	17	0:27	6:12	12:58	18:50			S	17	0:26	6:20	12:57	18:59
			15.8	4.7	15.3	. . .					5.3	15.1	4.9	15.0					4.9	16.0	4.4	15.7
	Tu	18	0:12	5:57	12:42	18:30		E	F	18	1:30	7:22	14:03	19:57			S	18	1:22	7:30	13:57	20:02
			5.1	14.9	5.1	14.6					5.2	15.4	4.6	15.5					4.8	16.2	4.2	16.2
	W	19	1:22	7:05	13:58	19:48			S	19	2:33	8:23	15:02	20:52			M	19	2:24	8:28	14:59	20:57
			5.3	14.7	4.9	14.9					4.8	16.2	4.0	16.4					4.4	16.9	3.7	17.2
A	Th	20	2:37	8:18	15:09	20:50			S	20	3:30	9:12	15:56	21:38			Tu	20	3:26	9:20	15.59	21:46
			4.9	15.3	4.2	15.7					4.1	17.2	3.3	17.4					3.8	17.8	3.1	18.2
	F	21	3:39	9:12	16:04	21:39			M	21	4:21	9:57	16:45	22:18			W	21	4:25	10:07	16:52	22:30
			4.1	16.3	3.3	16.6					3.3	18.2	2.6	18.4					3.1	18.7	2.5	19.0
E	S	22	4:30	9:55	16:50	22:17			Tu	22	5:07	10:37	17:27	22:55		○	Th	22	5:17	10:50	17:40	23:10
			3.2	17.3	2.6	17.5					2.7	19.0	2.2	19.2					2.4	19.5	2.0	19.8
	S	23	5:13	10:31	17:27	22:50		○	W	23	5:47	11:13	18:05	23:31		N	F	23	6:01	11:32	18:24	23:52
			2.5	18.2	2.2	18.3					2.3	19.7	2.0	19.9					1.9	20.1	1.8	20.4
○	M	24	5:47	11:06	18:05	23:22			Th	24	6:22	11:50	18:42	. . .			S	24	6:46	12:13	19:07	. . .
			2.3	18.9	1.9	19.1					2.1	20.2	2.0	. . .					1.6	20.5	1.7	. . .
	Tu	25	6:19	11:37	18:36	23:54		N	F	25	0:09	7:02	12:28	19:20			S	25	0:34	7:30	12:55	19:52
			2.3	19.7	1.9	19.8					20.4	2.0	20.5	2.1					20.8	1.5	20.5	1.7
	W	26	6:48	12:12	19:03	. . .			S	26	0:48	7:38	13:09	20:00			M	26	1:17	8:14	13:39	20:34
			2.3	20.2	2.2	. . .					20.5	2.1	20.5	2.3					20.8	1.5	20.4	1.9
	Th	27	0:28	7:15	12:46	19:34			S	27	1:30	8:21	13:52	20:42		P	Tu	27	2:02	9:00	14:27	21:20
			20.2	2.4	20.5	2.3					20.4	2.3	20.0	2.6					20.5	1.7	19.9	2.2
	F	28	1:04	7:50	13:24	20:08			M	28	2:15	9:07	14:40	21:27			W	28	2:51	9:46	15:17	22:07
			20.4	2.5	20.5	2.5					19.9	2.5	19.4	3.0					19.7	2.0	19.0	2.6
N	S	29	1:45	8:28	14:06	20:50			Tu	29	3:06	9:54	15:34	22:21		E	Th	29	3:45	10:38	16:15	23:04
			20.2	2.7	20.0	2.9					19.1	2.8	18.4	3.4		☾			18.8	2.4	18.0	3.1
	S	30	2:30	9:12	14:55	21:36		☾	W	30	4:03	10:53	16:35	23:22			F	30	4:45	11:36	17:18	. . .
			19.6	2.9	19.2	3.3					18.0	3.1	17.4	3.8					17.9	2.8	17.1	. . .
☾	M	31	3:20	10:03	15:50	22:34											S	31	0:02	5:52	12:37	18:31
			18.7	3.3	18.1	3.9													3.6	17.0	3.2	16.4

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 9.9 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	5:17 5.6	10:08 1.6	17:58 5.4	22:34 1.1
N	S	2	6:24 6.4	11:20 1.1	18:49 6.0	23:35 0.9
○	S	3	7:10 7.2	12:31 0.8	19:32 6.8	. . . . . .
P	M	4	0:31 0.8	7:49 7.6	13:40 0.5	20:14 7.2
	Tu	5	1:20 0.8	8:29 7.8	16:11 0.5	20:55 7.0
	W	6	2:02 1.0	9:09 7.7	17:02 0.8	21:34 6.7
	Th	7	2:40 1.2	9:46 7.3	17:54 0.9	22:11 6.3
E	F	8	3:16 1.6	10:23 6.8	18:45 1.4	22:50 5.7
☾	S	9	3:55 2.0	11:00 6.2	19:34 1.7	23:30 5.3
	S	10	4:40 2.3	11:42 5.6	20:24 2.1	. . . . . .
	M	11	0:16 4.8	5:29 2.5	12:31 5.0	21:23 2.5
	Tu	12	1:15 4.6	6:30 2.7	13:38 4.5	22:22 2.6
	W	13	3:32 4.5	7:31 2.8	15:45 4.5	23:25 2.5
	Th	14	4:40 4.9	8:39 2.7	17:04 4.8	. . . . . .
S	F	15	0:19 2.3	5:29 5.4	9:49 2.5	17:51 5.2
	S	16	1:13 2.0	6:10 6.0	11:00 2.1	18:38 5.6
●	S	17	2:02 1.8	6:54 6.5	12:00 1.6	19:16 5.9
	M	18	2:48 1.8	7:31 6.7	13:06 1.5	19:49 6.0
A	Tu	19	3:35 1.7	8:01 6.8	14:02 1.4	20:20 6.0
	W	20	3:10 1.7	8:30 6.7	14:56 1.4	20:46 5.8
	Th	21	2:30 1.7	8:56 6.5	15:50 1.3	21:11 5.6
	F	22	1:54 1.7	9:21 6.2	16:34 1.2	21:35 5.5
E	S	23	2:30 1.6	9:48 5.9	16:50 1.2	22:05 5.3
	S	24	3:09 1.7	10:20 5.6	15:45 1.2	22:40 5.1
☽	M	25	3:56 1.8	10:59 5.3	16:34 1.4	23:24 4.9
	Tu	26	4:50 2.0	11:43 4.9	17:30 1.7	. . . . . .
	W	27	0:20 4.7	5:55 2.3	12:45 4.6	19:35 1.9
	Th	28	1:36 4.6	7:06 2.4	14:15 4.3	18:43 1.9
N	F	29	3:50 4.9	8:21 2.3	16:31 4.7	20:54 1.8
	S	30	5:11 5.6	9:40 1.8	17:40 5.5	22:10 1.5
	S	31	6:03 6.6	11:20 1.2	18:34 6.4	23:30 1.2

FEBRUARY.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
○	M	1	6:53 7.4	13:20 0.6	19:19 7.0	. . . . . .
P	Tu	2	0:46 0.9	7:35 7.9	15:00 0.1	19:58 7.4
	W	3	1:30 0.5	8:15 8.1	15:46 0.0	20:38 7.5
E	Th	4	2:06 0.8	8:58 8.0	16:00 0.2	21:16 7.2
	F	5	2:35 1.0	9:30 7.7	16:20 0.6	21:51 6.8
	S	6	3:08 1.2	10:04 7.1	16:48 1.0	22:25 6.2
	S	7	3:34 1.6	10:37 6.4	17:30 1.3	22:58 5.7
☾	M	8	4:30 2.0	11:10 5.7	18:22 1.7	23:34 5.1
	Tu	9	6:20 2.4	11:51 5.0	18:57 2.1	. . . . . .
	W	10	0:18 4.7	7:18 2.7	12:41 4.4	19:40 2.5
S	Th	11	1:20 4.3	8:20 2.9	14:03 3.6	20:30 2.7
	F	12	4:15 4.4	10:00 2.6	16:41 4.2	22:50 2.6
	S	13	5:10 4.9	11:10 2.0	17:37 4.8	23:59 2.3
	S	14	5:52 5.5	12:30 1.6	18:20 5.3	. . . . . .
	M	15	1:10 2.0	6:31 6.2	13:50 1.3	18:57 5.8
A ●	Tu	16	2:05 1.8	7:10 6.7	14:52 1.2	19:29 6.1
	W	17	2:00 1.7	7:40 6.9	14:04 1.2	19:57 6.3
	Th	18	1:34 1.6	8:09 6.9	13:40 1.1	20:25 6.3
E	F	19	1:20 1.4	8:35 6.8	13:50 1.0	20:50 6.2
	S	20	1:41 1.3	9:01 6.6	14:09 0.9	21:15 6.0
	S	21	2:15 1.3	9:29 6.3	14:44 0.9	21:44 5.8
	M	22	2:52 1.4	10:00 5.9	15:20 1.0	22:18 5.5
	Tu	23	3:34 1.6	10:36 5.4	16:04 1.2	22:58 5.2
☽	W	24	4:24 1.8	11:19 5.0	16:56 1.6	23:48 4.8
	Th	25	5:24 2.1	12:15 4.5	18:00 2.0	. . . . . .
N	F	26	0:55 4.5	6.35 2.4	13:36 4.4	19:10 2.2
	S	27	2:42 4.6	7:53 2.4	16:16 4.5	21:15 2.2
	S	28	4:58 5.3	10:50 1.9	17:26 5.3	23:05 1.9
	M	29	5:45 6.4	12:50 1.0	18:17 6.3	. . . . . .

MARCH.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
P	Tu	1	0:29 1.4	6:33 7.3	13:56 0.3	19:00 7.0
○	W	2	2:08 0.8	7:16 8.0	14:37 —0.2	19:39 7.6
E	Th	3	2:44 0.6	7:54 8.2	15:22 —0.2	20:16 7.7
	F	4	2:30 0.6	8:31 8.2	15:56 0.0	20:52 7.6
	S	5	2:20 0.8	9:08 7.8	15:20 0.4	21:25 7.1
	S	6	2:41 1.1	9:40 7.2	15:04 0.9	21:55 6.6
	M	7	3:07 1.5	10:10 6.4	15:26 1.3	22:25 6.0
	Tu	8	3:39 1.9	10:40 5.6	15:57 1.8	22:58 5.4
☾	W	9	4:15 2.2	11:15 4.9	16:34 2.2	23:35 4.9
S	Th	10	5:00 2.6	11:57 4.2	17:20 2.6	. . . . . .
	F	11	0:25 4.4	6:30 2.9	13:00 3.6	18:16 2.9
	S	12	1:47 4.2	8:25 2.7	16:15 3.8	19:26 3.0
	S	13	4:51 4.5	10:15 2.2	17:17 4.4	22:50 2.7
A	M	14	5:32 5.2	11:40 1.7	17:56 5.1	23:50 2.3
	Tu	15	6:09 6.0	12:10 1.3	18:35 5.7	. . . . . .
	W	16	0:05 1.8	6:47 6.6	11:48 1.2	19:01 6.2
● E	Th	17	0:02 1.7	7:20 6.9	12:14 0.9	19:35 6.6
	F	18	0:20 1.4	7:47 7.1	12:45 0.7	20:03 6.8
	S	19	0:54 1.3	8:15 7.0	13:16 0.6	20:30 6.7
	S	20	1:26 1.2	8:43 6.8	13:48 0.5	20:58 6.5
	M	21	2:01 1.2	9:11 6.4	14:20 0.7	21:26 6.3
	Tu	22	2:36 1.3	9:43 5.9	14:57 0.9	22:00 5.9
	W	23	3:15 1.5	10:18 5.4	15:37 1.3	22:38 5.5
N ☽	Th	24	4:01 1.7	11:00 4.8	16:25 1.7	23:25 5.1
	F	25	4:59 2.1	11:53 4.3	17:28 2.2	. . . . . .
	S	26	0:26 4.7	6:11 2.4	13:12 3.9	18:43 2.5
	S	27	2:05 4.6	8:34 2.5	16:16 4.3	21:20 2.6
	M	28	4:15 5.2	11:06 1.6	17:13 5.3	23:20 2.2
P	Tu	29	5:28 6.2	12:48 0.9	17:57 6.2	. . . . . .
E	W	30	1:06 1.5	6:11 7.1	13:30 0.2	18:40 7.0
○	Th	31	1:46 1.0	6:49 7.7	14:09 —0.1	19:18 7.5

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 3.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							NOVEMBER.							DECEMBER.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	S	1	3:47 10.3	9:58 1.1	16:08 10.1	22:21 1.3		Tu	1	5:12 9.7	11:24 1.8	17:40 9.7	. . . . . .		Th	1	5:56 9.7	12:08 1.7	18:24 10.0	. . . . . .
N ☾	S	2	4:32 9.9	10:46 1.5	17:00 9.7	23:16 1.7		W	2	0:02 1.6	6:17 9.4	12:30 2.1	18:48 9.6	E	F	2	0:47 1.8	7:00 9.6	13:14 1.8	19:30 10.0
	M	3	5:30 9.5	11:44 2.0	18:00 9.3	. . . . . .		Th	3	1:12 1.7	7:27 9.3	13:41 2.1	19:58 9.7	P	S	3	1:52 1.3	8:08 9.7	14:21 1.7	20:35 10.1
	Tu	4	0:20 2.1	6:36 9.1	12:52 2.3	19:11 9.2	E	F	4	2:20 1.5	8:37 9.5	14:50 1.8	21:05 10.1		S	4	2:56 1.1	9:12 9.9	15:25 1.3	21:38 10.4
	W	5	1:35 2.1	7:50 9.0	14:05 2.3	20:25 9.4	P	S	5	3:24 1.1	9:41 10.0	15:53 1.2	22:05 10.7		M	5	3:56 0.8	10:11 10.4	16:23 0.9	22:35 10.8
	Th	6	2:46 1.8	9:02 9.3	15:16 1.9	21:32 10.0		S	6	4:22 0.5	10:40 10.5	16:48 0.5	23:00 11.2		Tu	6	4:50 0.5	11:05 10.8	17:17 0.4	23:30 11.1
	F	7	3:50 1.2	10:07 9.9	16:18 1.2	22:31 10.7	●	M	7	5:14 0.1	11:30 11.1	17:39 0.1	23:52 11.6	●	W	7	5:41 0.3	11:55 11.1	18:05 0.1	. . . . . .
P E	S	8	4:47 0.5	11:03 10.6	17:14 0.5	23:25 11.4		Tu	8	6:02 —0.3	12:17 11.5	18:27 —0.3	. . . . . .	S	Th	8	0:19 11.3	6:31 0.1	12:43 11.4	18:54 —0.1
●	S	9	5:38 —0.2	11:53 11.2	18:05 —0.1	. . . . . .		W	9	0:40 11.8	6:51 —0.4	13:02 11.7	19:11 —0.4		F	9	1:07 11.4	7:15 0.1	13:26 11.4	19:37 —0.2
	M	10	0:13 11.9	6:25 —0.6	12:40 11.6	18:47 —0.4		Th	10	1:25 11.8	7:35 —0.3	13:45 11.6	19:56 —0.3		S	10	1:51 11.2	7:59 0.3	14:08 11.3	20:19 0.0
	Tu	11	0:59 12.2	7:11 —0.7	13:22 11.8	19:30 —0.5	S	F	11	2:08 11.6	8:18 0.0	14:27 11.4	20:38 0.0		S	11	2:33 10.9	8:38 0.6	14:48 11.0	21:09 0.3
	W	12	1:42 12.2	7:55 —0.6	14:05 11.7	20:13 —0.4		S	12	2:52 11.1	9:00 0.4	15:10 10.9	21:22 0.4		M	12	3:14 10.4	9:19 1.1	15:30 10.7	21:44 0.8
	Th	13	2:27 11.9	8:40 —0.3	14:48 11.4	20:59 —0.1		S	13	3:37 10.5	9:45 1.0	15:54 10.4	22:07 0.9		Tu	13	3:55 9.9	10:00 1.5	16:12 10.2	22:27 1.3
S	F	14	3:10 11.4	9:22 0.2	15:33 11.0	21:43 0.4		M	14	4:19 9.9	10:30 1.6	16:41 9.9	22:56 1.5	☽	W	14	4:37 9.4	10:45 2.0	16:57 9.7	23:12 1.7
	S	15	3:56 10.8	10:09 0.9	16:19 10.4	22:32 1.0	☽	Tu	15	5:08 9.3	11:20 2.2	17:32 9.4	23:48 2.0	A E	Th	15	5:22 9.0	11:32 2.4	17:45 9.3	. . . . . .
☽	S	16	4:44 10.0	10:56 1.5	17:08 9.8	23:22 1.6		W	16	6:00 8.8	12:13 2.6	18:25 9.1	. . . . . .		F	16	0:00 2.1	6:10 8.7	12:22 2.7	18:37 9.0
	M	17	5:35 9.4	11:50 2.1	18:00 9.3	. . . . . .	A	Th	17	0:44 2.4	6:57 8.5	13:10 2.8	19:22 8.9		S	17	0:52 2.4	7:02 8.5	13:15 2.8	19:29 8.8
	Tu	18	0:21 2.1	6:35 8.8	12:49 2.6	19:02 9.0	E	F	18	1:42 2.5	7:56 8.4	14:08 2.8	20:21 8.9		S	18	1:46 2.5	7:59 8.6	14:11 2.8	20:25 8.8
	W	19	1:25 2.5	7:40 8.5	13:54 2.8	20:06 8.9		S	19	2:40 2.5	8:52 8.6	15:05 2.6	21:17 9.0		M	19	2:41 2.5	8:57 8.8	15:09 2.6	21:21 9.0
A	Th	20	2:29 2.5	8:45 8.5	14:55 2.7	21:07 9.1		S	20	3:30 2.2	9:45 8.9	15:55 2.3	22:09 9.4		Tu	20	3:35 2.3	9:49 9.1	16:01 2.2	22:15 9.3
	F	21	3:27 2.3	9:42 8.8	15:50 2.3	22:00 9.4		M	21	4:20 1.9	10:33 9.4	16:42 1.9	22:55 9.7		W	21	4:28 1.9	10:40 9.6	16:54 1.7	23:06 9.7
E	S	22	4:16 2.0	10:32 9.2	16:37 1.9	22:49 9.8		Tu	22	5:05 1.6	11:17 9.8	17:27 1.4	23:38 10.1	○	Th	22	5:19 1.5	11:32 10.1	17:44 1.2	23:57 10.2
	S	23	5:02 1.6	11:13 9.6	17:19 1.5	23:31 10.2	○	W	23	5:47 1.2	11:59 10.2	18:09 1.0	. . . . . .	N	F	23	6:05 1.0	12:19 10.6	18:30 0.7	. . . . . .
○	M	24	5:42 1.1	11:50 10.1	17:57 1.2	. . . . . .		Th	24	0:20 10.4	6:28 0.9	12:39 10.6	18:49 0.7		S	24	0:42 10.6	6:50 0.7	13:03 11.0	19:15 0.3
	Tu	25	0:08 10.5	6:18 0.8	12:26 10.4	18:34 0.8	N	F	25	1:00 10.7	7:09 0.7	13:20 10.8	19:31 0.5		S	25	1:28 10.8	7:33 0.5	13:48 11.2	20:00 0.0
	W	26	0:45 10.7	6:55 0.6	13:03 10.7	19:10 0.6		S	26	1:42 10.8	7:50 0.5	14:02 10.9	20:15 0.3		M	26	2:11 11.0	8:20 0.4	14:32 11.3	20:46 0.0
	Th	27	1:22 10.8	7:31 0.5	13:42 10.8	19:50 0.5		S	27	2:26 10.8	8:36 0.6	14:47 10.9	21:00 0.4	P	Tu	27	2:57 10.9	9:05 0.5	15:25 11.2	21:34 0.1
	F	28	2:01 10.9	8:10 0.5	14:21 10.8	20:32 0.5		M	28	3:11 10.7	9:22 0.8	15:35 10.7	21:50 0.6		W	28	3:44 10.7	9:56 0.8	16:08 11.0	22:25 0.3
N	S	29	2:43 10.8	8:53 0.7	15:05 10.7	21:17 0.7		Tu	29	4:00 10.4	10:12 1.1	16:26 10.4	22:43 0.8	E ☾	Th	29	4:37 10.4	10:48 1.1	17:02 10.7	23:20 0.6
	S	30	3:27 10.4	9:38 1.0	15:51 10.3	22:13 1.0	☾	W	30	4:55 10.0	11:06 1.5	17:21 10.2	23:42 1.1		F	30	5:32 10.1	11:45 1.4	17:58 10.4	. . . . . .
☾	M	31	4:15 10.1	10:27 1.4	16:40 10.0	22:58 1.3									S	31	0:18 1.0	6:32 9.8	12:45 1.6	19:00 10.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.7 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, inwhich case subtract it.

The time used is Greenwich Mean Civil; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	F	1	2:42	9:08	15:09	21:30	
			0.8	10.0	0.6	10.3	
N	S	2	3:36	9:56	16:02	22:21	
			0.4	10.5	0.1	10.7	
○	S	3	4:27	10:47	16:52	23:10	
			—0.1	10.9	—0.2	11.0	
P	M	4	5:16	11:35	17:40	23:59	
			—0.4	11.1	—0.5	11.2	
	Tu	5	6:04	12:22	18:27	. . .	
			—0.5	11.2	—0.5	. . .	
	W	6	0:46	6:51	13:10	19:16	
			11.1	—0.4	11.0	—0.3	
	Th	7	1:34	7:40	14:00	20:05	
			10.9	—0.2	10.8	0.0	
E	F	8	2:24	8:30	14:50	20:57	
			10.6	0.2	10.4	0.4	
☾	S	9	3:18	9:25	15:45	21:53	
			10.2	0.7	9.9	0.9	
	S	10	4:14	10:22	16:44	22:53	
			9.7	1.1	9.5	1.3	
	M	11	5:16	11:24	17:49	23:58	
			9.3	1.5	9.2	1.6	
	Tu	12	6:22	12:30	18:56	. . .	
			9.1	1.7	9.1	. . .	
	W	13	1:08	7:28	13:36	19:59	
			1.7	9.2	1.7	9.2	
	Th	14	2:06	8:30	14:35	20:57	
			1.6	9.3	1.5	9.4	
S	F	15	3:02	9:25	15:30	21:49	
			1.3	9.6	1.3	9.7	
	S	16	3:52	10:14	16:15	22:35	
			1.2	9.8	1.1	9.8	
●	S	17	4:37	10:55	16:57	23:14	
			1.1	9.9	1.0	9.9	
	M	18	5:15	11:33	17:32	23:50	
			1.0	9.8	1.0	9.8	
A	Tu	19	5:50	12:06	18:05	. . .	
			1.0	9.8	1.0	. . .	
	W	20	0:22	6:21	12:37	18:37	
			9.7	1.1	9.6	1.1	
	Th	21	0:52	6:52	13:08	19:08	
			9.5	1.1	9.5	1.1	
	F	22	1:24	7:25	13:40	19:43	
			9.5	1.1	9.4	1.2	
E	S	23	1:58	8:02	14:17	20:22	
			9.4	1.2	9.3	1.3	
	S	24	2:37	8:44	14:59	21:07	
			9.3	1.3	9.2	1.4	
☽	M	25	3:22	9:32	15:47	21:58	
			9.1	1.5	9.0	1.6	
	Tu	26	4:15	10:27	16:45	22:57	
			8.9	1.7	8.9	1.7	
	W	27	5:17	11:27	17:50	. . .	
			8.8	1.8	8.8	. . .	
	Th	28	0:02	6:25	12:37	19:00	
			1.8	8.9	1.7	9.0	
N	F	29	1:11	7:34	13:44	20:07	
			1.6	9.2	1.4	9.5	
	S	30	2:17	8:38	14:46	21:09	
			1.1	9.8	0.9	10.0	
	S	31	3:16	9:37	15:44	22:03	
			0.6	10.3	0.3	10.6	

FEBRUARY.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
○	M	1	4:10	10:30	16:35	22:55	
P			0.0	10.9	—0.2	11.2	
	Tu	2	5:00	11:19	17:25	23:42	
			—0.5	11.3	—0.6	11.4	
	W	3	5:48	12:11	18:11	. . .	
			—0.7	11.5	—0.8	. . .	
E	Th	4	0:29	6:35	12:52	18:58	
			11.5	—0.8	11.4	—0.7	
	F	5	1:15	7:20	13:39	19:44	
			11.3	—0.5	11.2	—0.4	
	S	6	2:02	8:08	14:27	20:33	
			11.0	—0.2	10.7	0.1	
	S	7	2:52	8:57	15:18	21:25	
			10.4	0.4	10.2	0.7	
☾	M	8	3:45	9:52	16:14	22:21	
			9.9	1.0	9.6	1.3	
	Tu	9	4:44	10:52	17:16	23:23	
			9.3	1.6	9.0	1.8	
	W	10	5:49	11:57	18:23	. . .	
			8.9	2.0	8.8	. . .	
S	Th	11	0:30	6:58	13:05	19:30	
			2.1	8.8	2.1	8.8	
	F	12	1:38	8:02	14:10	20:33	
			2.1	8.9	2.0	9.0	
	S	13	2:40	9:00	15:05	21:27	
			1.8	9.2	1.7	9.3	
	S	14	3:30	9:51	15:53	22:14	
			1.5	9.5	1.4	9.6	
A	M	15	4:15	10:33	16:34	22:53	
			1.2	9.7	1.2	9.8	
●	Tu	16	4:51	11:10	17:08	23:27	
			1.1	9.8	1.0	9.9	
	W	17	5:25	11:42	17:40	23:57	
			0.9	9.9	0.9	9.9	
	Th	18	5:57	12:12	18:11	. . .	
			0.8	9.9	0.8	. . .	
E	F	19	0:26	6:26	12:41	18:42	
			9.8	0.8	9.8	0.8	
	S	20	0:56	6:58	13:12	19:15	
			9.8	0.8	9.8	0.8	
	S	21	1:29	7:33	13:47	19:52	
			9.8	0.8	9.7	0.9	
	M	22	2:06	8:12	14:27	20:35	
			9.6	1.0	9.5	1.1	
	Tu	23	2:50	8:59	15:13	21:25	
			9.4	1.2	9.3	1.4	
☽	W	24	3:40	9:52	16:10	22:24	
			9.1	1.5	9.0	1.7	
	Th	25	4:42	10:56	17:17	23:30	
			8.8	1.8	8.8	1.9	
N	F	26	5:54	12:07	18:32	. . .	
			8.7	1.9	8.8	. . .	
	S	27	0:44	7:08	13:20	19:45	
			1.8	9.0	1.6	9.2	
	S	28	1:54	8:18	14:27	20:49	
			1.3	9.5	1.0	9.9	
	M	29	2:57	9:18	15:25	21:47	
			0.7	10.3	0.4	10.6	

MARCH.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
P	Tu	1	3:52	10:12	16:17	22:38	
			0.0	10.9	—0.3	11.2	
○	W	2	4:42	11:00	17:06	23:25	
			—0.5	11.4	—0.7	11.6	
E	Th	3	5:29	11:47	17:51	. . .	
			—0.9	11.7	—0.9	. . .	
	F	4	0:09	6:14	12:31	18:37	
			11.7	—0.9	11.6	—0.8	
	S	5	0:53	6:58	13:16	19:20	
			11.5	—0.7	11.3	—0.5	
	S	6	1:38	7:44	14:02	20:06	
			11.1	—0.2	10.8	0.1	
	M	7	2:25	8:30	14:49	20:55	
			10.5	0.4	10.2	0.7	
	Tu	8	3:15	9:20	15:42	21:48	
			9.8	1.1	9.5	1.4	
☾	W	9	4:10	10:17	16:41	22:48	
			9.2	1.7	8.9	2.0	
S	Th	10	5:14	11:20	17:48	23:55	
			8.7	2.2	8.5	2.3	
	F	11	6:22	12:30	18:58	. . .	
			8.4	2.4	8.5	. . .	
	S	12	1:04	7:31	13:37	20:02	
			2.4	8.5	2.3	8.7	
	S	13	2:07	8:30	14:35	20:57	
			2.2	8.9	2.0	9.0	
A	M	14	3:00	9:21	15:23	21:44	
			1.8	9.2	1.6	9.4	
	Tu	15	3:44	10:04	16:05	22:22	
			1.4	9.6	1.2	9.8	
	W	16	4:22	10:40	16:40	22:57	
			1.0	9.9	0.9	10.0	
●	Th	17	4:55	11:12	17:12	23:27	
E			0.8	10.0	0.7	10.1	
	F	18	5:27	11:42	17:43	23:57	
			0.6	10.1	0.5	10.1	
	S	19	6:00	12:14	18:16	. . .	
			0.5	10.1	0.5	. . .	
	S	20	0:28	6:32	12:46	18:50	
			10.1	0.5	10.1	0.5	
	M	21	1:03	7:08	13:22	19:27	
			10.1	0.5	10.0	0.6	
	Tu	22	1:41	7:49	14:02	20:11	
			9.9	0.8	9.7	0.9	
	W	23	2:25	8:35	14:50	21:00	
			9.6	1.1	9.4	1.3	
N	Th	24	3:17	9:30	15:46	22:00	
☽			9.2	1.5	9.0	1.7	
	F	25	4:19	10:32	16:54	23:08	
			8.8	1.8	8.7	1.9	
	S	26	5:32	11:45	18:11	. . .	
			8.7	2.0	8.7	. . .	
	S	27	0:22	6:48	12:59	19:24	
			1.9	8.9	1.7	9.1	
	M	28	1:34	8:00	14:07	20:30	
			1.5	9.5	1.2	9.8	
P	Tu	29	2:38	9:00	15:06	21:27	
			0.8	10.2	0.5	10.5	
E	W	30	3:33	9:53	15:59	22:19	
			0.1	10.8	—0.2	11.1	
○	Th	31	4:22	10:42	16:47	23:05	
			—0.4	11.4	—0.6	11.5	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Kingstown Mean Local Civil, for the meridian 6° 08′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	5:08	11:27	17:30	23:48
			1.3	11.6	—0.8	11.6
	S	2	5:52	12:10	18:14	. . .
			—0.8	11.5	—0.7	. . .
	S	3	0:30	6:35	12:52	18:57
			11.3	—0.5	11.2	—0.3
	M	4	1:14	7:18	13:36	19:40
			10.9	0.0	10.6	0.2
	Tu	5	1:59	8:02	14:21	20:25
			10.3	0.5	10.0	0.9
S	W	6	2:45	8:50	15:10	21:15
			9.7	1.2	9.3	1.5
☾	Th	7	3:37	9:43	16:06	22:12
			9.0	1.8	8.7	2.1
	F	8	4:36	10:42	17:08	23:16
			8.5	2.3	8.3	2.5
	S	9	5:41	11:48	18:17	. . .
			8.2	2.5	8.2	. . .
A	S	10	0:22	6:50	12:52	19:20
			2.6	8.3	2.5	8.4
	M	11	1:25	7:50	13:54	20:17
			2.4	8.6	2.2	8.8
	Tu	12	2:20	8:41	14:44	21:04
			2.0	9.0	1.7	9.3
E	W	13	3:05	9:26	15:27	21:46
			1.5	9.5	1.3	9.7
	Th	14	3:46	10:05	16:05	22:22
			1.1	9.8	0.9	10.0
●	F	15	4:24	10:40	16:40	22:57
			0.7	10.1	0.6	10.2
	S	16	4:57	11:14	17:15	23:30
			0.4	10.3	0.3	10.3
	S	17	5:33	11:49	17:50	. . .
			0.3	10.4	0.2	. . .
	M	18	0:05	6:10	12:24	18:28
			10.4	0.2	10.3	0.3
	Tu	19	0:42	6:47	13:02	19:08
			10.3	0.3	10.2	0.5
N	W	20	1:24	7:30	13:45	19:52
			10.0	0.6	9.9	0.8
	Th	21	2:09	8:18	14:34	20:44
			9.7	1.0	9.5	1.2
	F	22	3:02	9:12	15:31	21:43
			9.3	1.4	9.1	1.6
☽	S	23	4:04	10:17	16:39	22:51
			8.9	1.7	8.8	1.8
	S	24	5:15	11:27	17:52	. . .
			8.8	1.9	8.8	. . .
	M	25	0:04	6:30	12:40	19:05
			1.8	9.0	1.7	9.2
P	Tu	26	1:15	7:37	13:47	20:10
			1.5	9.4	1.2	9.7
E	W	27	2:17	8:39	14:45	21:07
			0.9	10.0	0.6	10.4
	Th	28	3:12	9:32	15:37	21:58
			0.3	10.6	0.1	10.9
○	F	29	4:02	10:22	16:26	22:45
			—0.1	11.0	—0.3	11.2
	S	30	4:48	11:07	17:10	23:28
			—0.4	11.2	—0.4	11.2

MAY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	S	1	5:32	11:50	17:52	. . .
			—0.3	11.1	—0.3	. . .
	M	2	0:10	6:13	12:31	18:34
			10.9	—0.1	10.8	0.0
S	Tu	3	0:52	6:55	13:12	19:15
			10.6	0.2	10.3	0.5
	W	4	1:34	7:37	13:55	19:59
			10.1	0.8	9.8	1.0
	Th	5	2:17	8:21	14:40	20:44
			9.5	1.3	9.2	1.6
	F	6	3:04	9:09	15:30	21:35
			9.0	1.8	8.8	2.0
☾	S	7	3:57	10:02	16:25	22:30
			8.5	2.2	8.4	2.4
A	S	8	4:56	11:00	17:27	23:32
			8.3	2.5	8.2	2.5
	M	9	5:59	12:03	18:29	. . .
			8.2	2.5	8.3	. . .
	Tu	10	0:34	6:59	13:02	19:27
			2.4	8.5	2.3	8.6
E	W	11	1:30	7:52	13:56	20:18
			2.1	8.8	1.9	9.0
	Th	12	2:20	8:41	14:44	21:05
			1.7	9.3	1.4	9.5
	F	13	3:06	9:26	15:27	21:47
			1.2	9.7	1.0	9.9
	S	14	3:50	10:08	16:10	22:28
			0.7	10.1	0.6	10.3
●	S	15	4:30	10:47	16:50	23:07
			0.4	10.4	0.2	10.5
	M	16	5:10	11:26	17:29	23:46
			0.1	10.5	0.1	10.5
	Tu	17	5:50	12:06	18:10	. . .
			0.1	10.6	0.1	. . .
N	W	18	0:27	6:32	12:47	18:55
			10.5	0.2	10.4	0.2
	Th	19	1:10	7:17	13:34	19:40
			10.3	0.4	10.1	0.5
	F	20	1:58	8:05	14:24	20:32
			10.0	0.7	9.8	0.9
	S	21	2:51	9:00	15:20	21:30
			9.6	1.1	9.4	1.3
☽	S	22	3:50	10:02	16:23	22:35
P			9.3	1.4	9.1	1.5
	M	23	4:57	11:08	17:32	23:43
			9.1	1.6	9.1	1.6
E	Tu	24	6:08	12:17	18:41	. . .
			9.1	1.6	9.2	. . .
	W	25	0:51	7:14	13:23	19:46
			1.4	9.4	1.3	9.6
	Th	26	1:52	8:16	14:24	20:45
			1.1	9.8	0.9	10.0
	F	27	2:51	9:12	15:17	21:37
			0.7	10.3	0.5	10.4
	S	28	3:42	10:02	16:07	22:27
			0.4	10.6	0.2	10.6
○	S	29	4:30	10:50	16:52	23:10
			0.2	10.7	0.1	10.7
	M	30	5:18	11:32	17:35	23:52
			0.1	10.6	0.2	10.5
S	Tu	31	5:54	12:12	18:15	. . .
			0.3	10.4	0.4	. . .

JUNE.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	W	1	0:35	6:34	12:52	18:54
			10.3	0.6	10.0	0.8
	Th	2	1:11	7:13	13:32	19:33
			9.9	0.9	9.7	1.1
	F	3	1:51	7:54	14:12	20:14
			9.4	1.3	9.2	1.5
	S	4	2:32	8:35	14:55	20:58
			9.0	1.7	8.9	1.9
A	S	5	3:19	9:22	15:42	21:46
			8.7	2.0	8.6	2.1
☾	M	6	4:07	10:13	16:34	22:40
			8.5	2.2	8.4	2.2
E	Tu	7	5:02	11:08	17:30	23:38
			8.4	2.3	8.4	2.3
	W	8	6:00	12:07	18:30	. . .
			8.4	2.2	8.5	. . .
	Th	9	0:37	7:00	13:04	19:27
			2.1	8.7	2.0	8.8
	F	10	1:33	7:55	14:00	20:21
			1.8	9.0	1.6	9.3
	S	11	2:27	8:47	14:51	21:11
			1.3	9.5	1.1	9.8
	S	12	3:15	9:35	15:40	22:00
			0.9	10.0	0.7	10.2
●	M	13	4:03	10:22	16:26	22:45
			0.4	10.4	0.2	10.5
N	Tu	14	4:48	11:07	17:11	23:29
			0.1	10.7	0.0	10.7
	W	15	5:34	11:51	17:55	. . .
			—0.1	10.7	—0.1	. . .
	Th	16	0:14	6:19	12:37	18:41
			10.8	—0.1	10.7	—0.1
P	F	17	1:00	7:05	13:24	19:28
			10.6	0.0	10.5	0.2
	S	18	1:47	7:52	14:12	20:20
			10.4	0.3	10.2	0.5
	S	19	2:40	8:47	15:06	21:15
			10.1	0.6	9.9	0.8
☽	M	20	3:35	9:44	16:05	22:14
E			9.7	1.0	9.6	1.2
	Tu	21	4:35	10:46	17:08	23:19
			9.4	1.3	9.3	1.4
	W	22	5:41	11:50	18:14	. . .
			9.3	1.5	9.2	. . .
	Th	23	0:24	6:47	12:57	19:21
			1.5	9.3	1.5	9.4
	F	24	1:30	7:52	14:00	20:22
			1.4	9.5	1.3	9.6
	S	25	2:30	8:52	14:57	21:19
			1.2	9.8	1.0	9.9
	S	26	3:24	9:45	15:49	22:10
			0.9	10.0	0.8	10.2
S	M	27	4:12	10:32	16:36	22:56
○			0.7	10.2	0.6	10.3
	Tu	28	4:59	11:17	17:18	23:38
			0.6	10.3	0.6	10.2
	W	29	5:38	11:57	17:57	. . .
			0.7	10.1	0.7	. . .
	Th	30	0:15	6:15	12:33	18:34
			10.0	0.8	9.9	0.9

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Lower Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Kingstown Mean Local Civil, for the meridian 6° 08′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:51	6:51	13:08	19:09	
			9.8	1.0	9.6	1.1	
	S	2	1:26	7:26	13:43	19:45	
			9.5	1.2	9.4	1.3	
A	S	3	2:02	8:03	14:20	20:22	
			9.2	1.4	9.1	1.5	
	M	4	2:40	8:42	15:00	21:05	
			9.0	1.6	8.9	1.7	
E ☾	Tu	5	3:21	9:28	15:44	21:51	
			8.8	1.8	8.8	1.9	
	W	6	4:09	10:19	16:37	22:45	
			8.7	1.9	8.6	2.0	
	Th	7	5:05	11:14	17:34	23:44	
			8.6	2.0	8.6	2.0	
	F	8	6:05	12:14	18:37	. . .	
			8.6	2.0	8.7	. . .	
	S	9	0:46	7:10	13:17	19:40	
			1.9	8.9	1.7	9.0	
	S	10	1:47	8:10	14:17	20:39	
			1.5	9.3	1.3	9.5	
N	M	11	2:45	9:07	15:12	21:33	
			1.0	9.8	0.8	10.1	
	Tu	12	3:39	10:00	16:05	22:25	
			0.5	10.3	0.3	10.6	
●	W	13	4:30	10:50	16:54	23:12	
			0.1	10.8	—0.1	10.9	
	Th	14	5:17	11:37	17:42	. . .	
			—0.3	11.0	—0.4	. . .	
P	F	15	0:00	6:05	12:22	18:28	
			11.1	—0.4	11.1	—0.4	
	S	16	0:45	6:51	13:09	19:15	
			11.1	—0.4	11.0	—0.3	
	S	17	1:33	7:39	13:57	20:02	
			10.9	—0.2	10.8	0.0	
E	M	18	2:22	8:29	14:47	20:55	
			10.6	0.2	10.4	0.4	
☽	Tu	19	3:14	9:21	15:41	21:50	
			10.2	0.6	10.0	0.9	
	W	20	4:10	10:20	16:40	22:50	
			9.7	1.1	9.5	1.3	
	Th	21	5:12	11:22	17:46	23:55	
			9.3	1.5	9.2	1.6	
	F	22	6:20	12:29	18:54	. . .	
			9.1	1.7	9.1	. . .	
	S	23	1:04	7:28	13:37	20:00	
			1.8	9.1	1.7	9.2	
S	S	24	2:08	8:31	14:38	21:00	
			1.6	9.3	1.5	9.5	
	M	25	3:05	9:28	15:32	21:53	
			1.4	9.6	1.2	9.8	
	Tu	26	3:57	10:17	16:19	22:40	
			1.1	9.9	1.0	10.0	
○	W	27	4:41	11:00	17:01	23:20	
			0.9	10.0	0.9	10.0	
	Th	28	5:20	11:39	17:38	23:56	
			0.8	10.0	0.9	10.0	
	F	29	5:55	12:12	18:10	. . .	
			0.9	9.9	0.9	. . .	
A	S	30	0:28	6:27	12:44	18:44	
			9.8	1.0	9.7	1.0	
	S	31	0:59	6:59	13:14	19:15	
			9.6	1.0	9.6	1.1	

AUGUST.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
E	M	1	1:30	7:31	13:46	19:47	
			9.5	1.1	9.4	1.2	
	Tu	2	2:02	8:07	14:21	20:26	
			9.4	1.2	9.3	1.3	
	W	3	2:40	8:46	15:02	21:10	
			9.2	1.4	9.1	1.5	
☾	Th	4	3:25	9:35	15:50	22:00	
			9.0	1.6	8.9	1.7	
	F	5	4:17	10:30	16:47	23:00	
			8.8	1.8	8.7	1.9	
	S	6	5:20	11:31	17:58	. . .	
			8.7	2.0	8.7	. . .	
	S	7	0:04	6:27	12:40	19:08	
			1.9	8.7	1.9	8.9	
N	M	8	1:14	7:37	13:47	20:10	
			1.7	9.1	1.5	9.4	
	Tu	9	2:20	8:41	14:50	21:10	
			1.2	9.7	0.9	10.0	
	W	10	3:18	9:40	15:45	22:06	
			0.6	10.3	0.3	10.6	
●	Th	11	4:11	10:31	16:37	22:56	
			0.0	10.9	—0.2	11.1	
P	F	12	5:02	11:20	17:24	23:42	
			—0.5	11.3	—0.6	11.4	
	S	13	5:48	12:05	18:10	. . .	
			—0.7	11.5	—0.8	. . .	
E	S	14	0:28	6:33	12:50	18:56	
			11.5	—0.8	11.5	—0.7	
	M	15	1:13	7:19	13:37	19:41	
			11.3	—0.6	11.2	—0.4	
	Tu	16	2:00	8:07	14:25	20:30	
			11.0	—0.2	10.7	0.1	
	W	17	2:50	8:56	15:16	21:23	
			10.4	0.4	10.1	0.7	
☽	Th	18	3:44	9:51	16:12	22:20	
			9.8	1.0	9.6	1.3	
	F	19	4:43	10:52	17:17	23:25	
			9.3	1.6	9.0	1.8	
	S	20	5:52	12:00	18:27	. . .	
			8.9	2.0	8.8	. . .	
S	S	21	0:36	7:02	13:10	19:37	
			2.1	8.8	2.1	8.9	
	M	22	1:44	8:08	14:17	20:39	
			2.0	9.0	1.9	9.1	
	Tu	23	2:45	9:07	15:12	21:32	
			1.7	9.3	1.5	9.5	
	W	24	3:35	9:56	16:00	22:19	
			1.4	9.6	1.2	9.8	
	Th	25	4:20	10:40	16:40	22:57	
			1.1	9.9	1.0	9.9	
○	F	26	4:58	11:15	17:15	23:32	
			0.9	10.0	0.8	10.0	
A	S	27	5:30	11:46	17:46	. . .	
			0.8	10.0	0.8	. . .	
E	S	28	0:02	6:00	12:16	18:16	
			9.9	0.8	9.9	0.8	
	M	29	0:30	6:29	12:45	18:44	
			9.8	0.8	9.8	0.8	
	Tu	30	0:59	7:00	13:14	19:17	
			9.8	0.8	9.7	0.9	
	W	31	1:31	7:35	13:47	19:53	
			9.7	0.9	9.6	1.0	

SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	2:07	8:15	14:27	20:35	
			9.5	1.1	9.4	1.1	
	F	2	2:50	9:00	15:14	21:25	
			9.3	1.4	9.1	1.5	
☾	S	3	3:40	9:53	16:10	22:25	
			9.0	1.7	8.8	1.8	
N	S	4	4:43	10:57	17:18	23:32	
			8.7	1.9	8.6	2.0	
	M	5	5:56	12:09	18:33	. . .	
			8.6	2.0	8.7	. . .	
	Tu	6	0:46	7:10	13:21	19:45	
			1.8	8.9	1.6	9.2	
	W	7	1:55	8:19	14:28	20:49	
			1.4	9.5	1.0	9.9	
	Th	8	2:57	9:18	15:25	21:46	
			0.7	10.3	0.3	10.6	
P ●	F	9	3:51	10:12	16:17	22:35	
			0.0	11.0	—0.3	11.2	
E	S	10	4:42	11:00	17:05	23:22	
			—0.6	11.5	—0.8	11.6	
	S	11	5:27	11:45	17:50	. . .	
			—0.9	11.7	—1.0	. . .	
	M	12	0:07	6:12	12:29	18:35	
			11.7	—0.9	11.6	—0.9	
	Tu	13	0:52	6:57	13:15	19:20	
			11.5	—0.7	11.4	—0.5	
	W	14	1:37	7:42	14:00	20:07	
			11.1	—0.3	10.8	0.0	
	Th	15	2:25	8:30	14:50	20:56	
			10.5	0.3	10.2	0.7	
☽	F	16	3:17	9:23	15:46	21:52	
			9.8	1.1	9.5	1.4	
S	S	17	4:15	10:22	16:47	22:54	
			9.2	1.7	8.9	2.0	
	S	18	5:20	11:29	17:56	. . .	
			8.7	2.2	8.6	. . .	
	M	19	0:04	6:31	12:40	19:07	
			2.3	8.5	2.3	8.6	
	Tu	20	1:15	7:39	13:47	20:10	
			2.2	8.7	2.1	8.9	
	W	21	2:17	8:38	14:43	21:05	
			2.0	9.0	1.8	9.3	
	Th	22	3:09	9:28	15:30	21:50	
			1.6	9.4	1.4	9.6	
A	F	23	3:51	10:10	16:10	22:30	
			1.2	9.8	1.1	9.8	
○ E	S	24	4:28	10:45	16:45	23:00	
			1.0	10.0	0.8	10.0	
	S	25	5:01	11:17	17:17	23:32	
			0.8	10.0	0.7	10.0	
	M	26	5:30	11:47	17:46	. . .	
			0.7	10.0	0.6	. . .	
	Tu	27	0:00	6:02	12:16	18:17	
			10.0	0.6	10.0	0.6	
	W	28	0:30	6:34	12:47	18:50	
			10.0	0.6	9.9	0.7	
	Th	29	1:05	7:08	13:22	19:28	
			9.9	0.7	9.8	0.8	
	F	30	1:41	7:47	14:02	20:10	
			9.7	0.9	9.6	1.1	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Kingstown Mean Local Civil, for the meridian 6° 08′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	S	1	2:24 9.4	8:34 1.2	14:49 9.3	21:00 1.4	
N ☾	S	2	3:17 9.1	9:29 1.6	15:56 8.9	22:00 1.8	
	M	3	4:19 8.8	10:32 1.9	16:54 8.7	23:08 2.0	
	Tu	4	5:32 8.6	11:45 2.0	18:10 8.7	. . . . . .	
	W	5	0:22 1.9	6:48 8.9	13:00 1.7	19:22 9.2	
	Th	6	1:34 1.4	7:57 9.5	14:05 1.1	20:28 9.9	
	F	7	2:35 0.7	8:57 10.2	15:06 0.4	21:24 10.6	
P E	S	8	3:30 0.1	9:50 10.9	15:55 —0.2	22:15 11.2	
●	S	9	4:20 —0.5	10:39 11.4	16:42 —0.7	23:00 11.6	
	M	10	5:06 —0.8	11:24 11.6	17:28 —0.9	23:47 11.6	
	Tu	11	5:50 —0.8	12:08 11.5	18:14 —0.7	. . . . . .	
	W	12	0:30 11.4	6:35 —0.6	12:52 11.2	18:58 —0.4	
	Th	13	1:15 11.0	7:20 —0.1	13:38 10.7	19:42 0.2	
S	F	14	2:01 10.4	8:06 0.5	14:28 10.0	20:30 0.8	
	S	15	2:50 9.7	8:55 1.1	15:18 9.4	21:22 1.5	
☽	S	16	3:45 9.1	9:52 1.8	16:15 8.8	22:21 2.0	
	M	17	4:47 8.6	10:54 2.2	17:20 8.5	23:27 2.3	
	Tu	18	5:54 8.4	12:00 2.4	18:27 8.4	. . . . . .	
	W	19	0:34 2.4	7:00 8.5	13:06 2.3	19:31 8.6	
A	Th	20	1:37 2.2	8:00 8.8	14:02 2.0	20:26 9.0	
	F	21	2:28 1.8	8:50 9.2	14:50 1.6	21:12 9.4	
E	S	22	3:12 1.4	9:32 9.5	15:32 1.2	21:52 9.7	
	S	23	3:51 1.1	10:10 9.8	16:10 0.9	22:18 9.9	
○	M	24	4:27 0.8	10:44 10.0	16:44 0.7	23:00 10.1	
	Tu	25	5:01 0.6	11:17 10.1	17:18 0.5	23:34 10.2	
	W	26	5:35 0.5	11:50 10.2	17:52 0.5	. . . . . .	
	Th	27	0:07 10.2	6:10 0.5	12:25 10.1	18:30 0.5	
	F	28	0:43 10.0	6:48 0.6	13:03 10.0	19:08 0.7	
N	S	29	1:23 9.8	7:30 0.8	13:45 9.7	19:52 0.9	
	S	30	2:10 9.6	8:17 1.1	14:34 9.4	20:43 1.3	
☾	M	31	3:00 9.2	9:12 1.5	15:31 9.1	21:42 1.6	

NOVEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Tu	1	4:02 8.9	10:15 1.7	16:37 8.8	22:50 1.8	
	W	2	5:13 8.8	11:25 1.8	17:49 8.9	. . . . . .	
	Th	3	0:00 1.7	6:25 9.0	12:37 1.6	19:00 9.2	
E	F	4	1:10 1.4	7:32 9.5	13:42 1.2	20:05 9.8	
P	S	5	2:12 0.9	8:34 10.1	14:40 0.6	21:02 10.4	
	S	6	3:07 0.3	9:28 10.7	15:33 0.0	21:54 10.9	
●	M	7	3:59 —0.2	10:18 11.1	16:22 —0.3	22:41 11.2	
	Tu	8	4:46 —0.4	11:05 11.3	17:08 —0.5	23:27 11.2	
	W	9	5:31 —0.5	11:49 11.2	17:53 —0.3	. . . . . .	
	Th	10	0:10 11.0	6:16 —0.2	12:33 10.9	18:37 0.0	
S	F	11	0:56 10.7	6:59 0.1	13:17 10.4	19:20 0.4	
	S	12	1:39 10.2	7:42 0.7	14:02 9.9	20:06 0.9	
	S	13	2:26 9.6	8:30 1.2	14:52 9.4	20:54 1.5	
	M	14	3:16 9.1	9:20 1.7	15:42 8.9	21:46 1.9	
☽	Tu	15	4:10 8.7	10:15 2.1	16:38 8.5	22:44 2.3	
	W	16	5:08 8.3	11:15 2.3	17:40 8.4	23:45 2.4	
A	Th	17	6:10 8.4	12:15 2.4	18:40 8.4	. . . . . .	
E	F	18	0:45 2.3	7:09 8.6	13:12 2.2	19:36 8.7	
	S	19	1:38 2.0	8:02 8.9	14:04 1.8	20:26 9.0	
	S	20	2:28 1.7	8:50 9.3	14:51 1.5	21:10 9.4	
	M	21	3:12 1.3	9:32 9.6	15:34 1.0	21:53 9.8	
	Tu	22	3:54 0.9	10:13 9.9	16:14 0.7	22:31 10.1	
○	W	23	4:33 0.6	10:50 10.2	16:53 0.5	23:10 10.2	
	Th	24	5:12 0.4	11:30 10.3	17:32 0.3	23:48 10.3	
N	F	25	5:52 0.3	12:08 10.3	18:12 0.3	. . . . . .	
	S	26	0:28 10.3	6:34 0.4	12:50 10.2	18:55 0.4	
	S	27	1:12 10.1	7:18 0.5	13:35 10.0	19:40 0.7	
	M	28	1:58 9.9	8:05 0.8	14:23 9.7	20:31 1.0	
	Tu	29	2:50 9.5	9:00 1.1	15:18 9.4	21:28 1.3	
☾	W	30	3:48 9.3	9:59 1.4	16:20 9.2	22:30 1.5	

DECEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	Th	1	4:52 9.1	11:03 1.6	17:27 9.1	23:37 1.6	
E P	F	2	6:00 9.1	12:12 1.5	18:35 9.2	. . . . . .	
	S	3	0:45 1.4	7:08 9.4	13:17 1.3	19:40 9.7	
	S	4	1:48 1.1	8:11 9.8	14:18 0.9	20:40 10.0	
	M	5	2:47 0.7	9:08 10.2	15:14 0.5	21:35 10.4	
	Tu	6	3:40 0.3	10:00 10.6	16:05 0.2	22:25 10.7	
●	W	7	4:30 0.1	10:49 10.8	16:52 0.1	23:12 10.8	
S	Th	8	5:14 0.0	11:34 10.7	17:36 0.1	23:54 10.7	
	F	9	5:58 0.2	12:15 10.5	18:50 0.3	. . . . . .	
	S	10	0:37 10.4	6:40 0.4	12:58 10.2	19:00 0.6	
	S	11	1:18 10.0	7:20 0.8	13:40 9.8	19:42 1.0	
	M	12	2:00 9.6	8:02 1.2	14:32 9.4	20:24 1.4	
	Tu	13	2:43 9.2	8:46 1.6	15:05 9.0	21:10 1.7	
☽	W	14	3:29 8.8	9:32 1.9	15:53 8.7	21:59 2.0	
A E	Th	15	4:20 8.6	10:24 2.2	16:45 8.5	22:51 2.2	
	F	16	5:13 8.4	11:20 2.2	17:41 8.4	23:47 2.3	
	S	17	6:10 8.4	12:15 2.2	18:39 8.5	. . . . . .	
	S	18	0:44 2.2	7:07 8.6	13:12 2.0	19:36 8.8	
	M	19	1:40 1.8	8:02 8.9	14:07 1.7	20:29 9.2	
	Tu	20	2:32 1.5	8:54 9.4	14:57 1.3	21:18 9.6	
	W	21	3:21 1.0	9:42 9.8	15:45 0.8	22:04 10.0	
○	Th	22	4:08 0.7	10:27 10.2	16:30 0.5	22:49 10.3	
N	F	23	4:52 0.3	11:10 10.4	17:14 0.2	23:32 10.5	
	S	24	5:37 0.1	11:53 10.6	17:58 0.0	. . . . . .	
	S	25	0:15 10.6	6:20 0.0	12:37 10.6	18:42 0.0	
	M	26	1:00 10.5	7:04 0.1	13:22 10.4	19:27 0.2	
P	Tu	27	1:46 10.3	7:52 0.3	14:11 10.2	20:17 0.5	
	W	28	2:36 10.0	8:43 0.6	15:08 9.9	21:10 0.8	
E ☾	Th	29	3:31 9.8	9:40 1.0	16:00 9.6	22:10 1.1	
	F	30	4:30 9.4	10:40 1.3	17:02 9.3	23:12 1.4	
	S	31	5:35 9.2	11:46 1.5	18:10 9.2	. . . . . .	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.4 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Kingstown Mean Local Civil, for the meridian 6° 08′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JANUARY.								FEBRUARY.								MARCH.							
Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	2:48	9:10	15:15	21:36	○ P	M	1	4:16	10:35	16:42	23:00	P	Tu	1	4:00	10:20	16:26	22:44
			10.7	0.9	11.0	0.5				11.7	−0.2	12.0	−0.5				11.6	−0.2	12.0	−0.5
N	S	2	3:42	10:02	16:08	22:26		Tu	2	5:07	11:25	17:31	23:48	○	W	2	4:50	11:07	17:14	23:31
			11.3	0.2	11.7	−0.1				12.3	−0.7	12.4	−0.8				12.3	−0.7	12.5	−0.9
○	S	3	4:34	10:50	16:58	23:16		W	3	5:55	12:12	18:17	. . .	E	Th	3	5:36	11:52	17:58	. . .
			11.9	−0.3	12.1	−0.5				12.5	−0.8	12.5	. . .				12.6	−1.0	12.7	. . .
P	M	4	5:22	11:40	17:47	. . .	E	Th	4	0:35	6:41	13:00	19:04		F	4	0:15	6:20	12:36	18:42
			12.2	−0.5	12.3	. . .				−0.8	12.4	−0.7	12.3				−1.0	12.6	−0.9	12.5
	Tu	5	0:04	6:10	12:27	18:34		F	5	1:22	7:28	13:46	19:51		S	5	0:59	7:05	13:21	19:25
			−0.6	12.3	−0.5	12.6				−0.5	12.1	−0.2	11.8				−0.7	12.3	−0.4	12.0
	W	6	0:52	8:58	13:17	19:22		S	6	2:09	8:15	14:33	20:38		S	6	1:46	7:48	14:06	20:10
			−0.4	12.1	−0.3	11.9				0.1	11.5	0.4	11.1				−0.1	11.6	0.3	11.2
	Th	7	1:41	7:47	14:06	20:12		S	7	2:59	9:04	15:24	21:30		M	7	2:30	8:33	14:52	20:57
			0.0	11.7	0.2	11.4				0.8	10.7	1.2	10.3				0.7	10.8	1.2	10.3
E	F	8	2:32	8:38	14:57	21:05	☾	M	8	3:51	9:58	16:19	22:27		Tu	8	3:17	9:22	15:44	21:50
			0.5	11.1	0.8	10.8				1.6	9.9	1.9	9.6				1.7	9.8	2.1	9.4
☾	S	9	3:25	9:33	15:54	22:02		Tu	9	4:50	10:58	17:23	23:30	☾	W	9	4:12	10:19	16:43	22:50
			1.1	10.4	1.4	10.2				2.3	9.2	2.6	9.0				2.5	9.0	2.8	8.7
	S	10	4:22	10:32	16:54	23:03		W	10	5:58	12:05	18:32	. . .	S	Th	10	5:17	11:24	17:54	. . .
			1.7	9.9	1.9	9.6				2.8	8.8	2.8	. . .				3.1	8.5	3.3	. . .
	M	11	5:27	11:35	18:00	. . .	S	Th	11	0:40	7:08	13:15	19:41		F	11	0:00	6:31	12:35	19:07
			2.2	9.4	2.3	. . .				8.7	2.8	8.7	2.7				8.3	3.3	8.2	3.3
	Tu	12	0:08	6:33	12:41	19:07		F	12	1:48	8:12	14:17	20:40		S	12	1:12	7:40	13:44	20:10
			9.3	2.3	9.2	2.3				8.8	2.6	9.0	2.4				8.3	3.2	8.5	2.9
	W	13	1:15	7:38	13:16	20:08		S	13	2:45	9:07	15:10	21:31		S	13	2:14	8:37	14:40	21:02
			9.3	2.2	9.3	2.1				9.2	2.2	9.4	2.0				8.7	2.7	9.0	2.4
	Th	14	2:15	8:37	14:42	21:04		S	14	3:34	9:54	15:55	22:14	A	M	14	3:04	9:24	15:26	21:45
			9.5	2.0	9.6	1.8				9.6	1.8	9.8	1.5				9.3	2.1	9.6	1.8
S	F	15	3:08	9:30	15:32	21:54	A	M	15	4:16	10:32	16:35	22:52		Tu	15	3:47	10:05	16:04	22:22
			9.8	1.6	9.9	1.5				10.1	1.3	10.3	1.2				9.9	1.5	10.2	1.2
	S	16	3:55	10:15	16:17	22:35	●	Tu	16	4:52	11:10	17:10	23:27		W	16	4:24	10:41	16:41	22:57
			10.1	1.3	10.2	1.2				10.4	1.0	10.6	1.0				10.4	1.0	10.7	0.8
●	S	17	4:37	10:55	16:57	23:15		W	17	5:27	11:43	17:44	. . .	● E	Th	17	4:58	11:15	17:15	23:30
			10.4	1.1	10.4	1.1				10.7	0.9	10.8	. . .				10.9	0.6	11.1	0.5
	M	18	5:15	11:34	17:33	23:50		Th	18	0:00	6:00	12:16	18:17		F	18	5:32	11:47	17:48	. . .
			10.5	1.1	10.5	1.1				0.9	10.8	0.9	10.8				11.2	0.4	11.3	. . .
A	Tu	19	5:51	12:08	18:08	. . .	E	F	19	0:32	6:33	12:47	18:49		S	19	0:04	6:05	12:20	18:22
			10.5	1.2	10.5	. . .				0.9	10.8	1.0	10.8				0.5	11.3	0.5	11.3
	W	20	0:25	6:25	12:42	18:42		S	20	1:05	7:05	13:20	19:22		S	20	0:37	6:40	12:56	18:58
			1.2	10.4	1.3	10.4				1.1	10.7	1.2	10.6				0.5	11.3	0.6	11.2
	Th	21	0:57	7:00	13:15	19:15		S	21	1:37	7:41	13:56	20:00		M	21	1:14	7:17	13:32	19:36
			1.5	10.3	1.6	10.2				1.3	10.5	1.5	10.3				0.8	11.0	1.0	10.8
	F	22	1:30	7:31	13:49	19:50		M	22	2:12	8:20	14:34	20:41		Tu	22	1:52	7:57	14:12	20:18
			1.7	10.1	1.8	10.0				1.7	10.2	1.8	10.0				1.2	10.6	1.4	10.4
E	S	23	2:05	8:07	14:24	20:27		Tu	23	2:56	9:05	15:20	21:30		W	23	2:35	8:42	15:00	21:08
			1.9	9.9	2.1	9.7				2.0	9.8	2.2	9.6				1.7	10.0	1.9	9.8
	S	24	2:42	8:48	15:05	21:12	☽	W	24	3:47	10:00	16:17	22:30	N ☽	Th	24	3:25	9:37	15:54	22:08
			2.2	9.6	2.3	9.5				2.4	9.4	2.6	9.2				2.2	9.5	2.5	9.3
☽	M	25	3:27	9:37	15:52	22:02		Th	25	4:50	11:03	17:27	23:40		F	25	4:28	10:42	17:07	23:20
			2.4	9.4	2.5	9.3				2.7	9.1	2.8	9.0				2.7	9.1	2.8	9.0
	Tu	26	4:20	10:32	16:50	23:02	N	F	26	6:05	12:17	18:43	. . .		S	26	5:46	11:58	18:26	. . .
			2.6	9.2	2.7	9.2				2.7	9.1	2.6	. . .				2.8	9.0	2.7	. . .
	W	27	5:24	11:36	18:00	. . .		S	27	0:55	7:20	13:31	19:56		S	27	0:36	7:05	13:14	19:39
			2.7	9.1	2.7	. . .				9.3	2.3	9.5	2.0				9.1	2.5	9.4	2.1
	Th	28	0:10	6:35	12:45	19:10		S	28	2:05	8:28	14:37	20:59		M	28	1:48	8:13	14:20	20:42
			9.2	2.5	9.4	2.3				9.9	1.5	10.3	1.1				9.8	1.7	10.2	1.2
N	F	29	1:20	7:44	13:53	20:16		M	29	3:06	9:27	15:34	21:54	P	Tu	29	2:50	9:10	15:17	21:36
			9.6	2.0	9.9	1.6				10.8	0.6	11.2	0.2				10.6	0.7	11.1	0.3
	S	30	2:24	8:47	14:54	21:16								E	W	30	3:42	10:02	16:07	22:26
			10.3	1.2	10.6	0.8											11.5	−0.1	11.9	−0.4
	S	31	3:22	9:44	15:50	22:10								○	Th	31	4:30	10:49	16:53	23:10
			11.0	0.4	11.4	0.1											12.1	−0.7	12.4	−0.8

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (−) sign is before the height, in which case subtract it.

The time used is Queenstown Mean Local Civil for the meridian 8° 16′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	5:15	11:32	17:38	23:52		S	1	5:37	11:54	17:57	. . .		W	1	0:35	6:37	12:55	18:57
			12.5	—0.9	12.5	—0.8				12.0	—0.3	11.9	. . .				0.7	10.8	1.0	10.5
	S	2	6:00	12:14	18:20	. . .		M	2	0:14	6:17	12:34	18:38		Th	2	1:15	7:16	13:35	19:35
			12.4	—0.7	12.3	. . .				—0.2	11.7	0.1	11.5				1.3	10.3	1.6	10.0
	S	3	0:37	6:40	12:57	19:02	S	Tu	3	0:54	6:58	13:15	19:18		F	3	1:53	7:55	14:13	20:15
			—0.5	12.1	—0.3	11.8				0.4	11.1	0.7	10.8				1.9	9.7	2.2	9.4
	M	4	1:18	7:21	13:39	19:42		W	4	1:37	7:38	13:57	20:00		S	4	2:34	8:36	14:55	20:57
			0.1	11.5	0.5	11.1				1.1	10.4	1.5	10.0				2.5	9.1	2.8	8.9
	Tu	5	2:00	8:04	14:22	20:27		Th	5	2:18	8:20	14:41	20:43	A	S	5	3:18	9:21	15:42	21:45
			0.9	10.6	1.3	10.2				1.9	9.7	2.3	9.3				3.0	8.7	3.2	8.5
S	W	6	2:47	8:50	15:10	21:14		F	6	3:05	9:07	15:29	21:32	☾	M	6	4:08	10:12	16:35	22:40
			1.8	9.8	2.2	9.3				2.7	8.9	3.0	8.6				3.3	8.4	3.4	8.4
☾	Th	7	3:36	9:40	16:05	22:10	☾	S	7	3:55	9:58	16:22	22:28	E	Tu	7	5:04	11:10	17:35	23:40
			2.6	8.9	3.0	8.6				3.3	8.4	3.5	8.2				3.5	8.4	3.4	8.4
	F	8	4:37	10:40	17:10	23:15	A	S	8	4:56	11:00	17:30	23:35		W	8	6:07	12:11	18:36	. . .
			3.3	8.3	3.5	8.1				3.7	8.1	3.7	8.0				3.2	8.6	3.1	. . .
	S	9	5:46	11:50	18:24	. . .		M	9	6:02	12:17	18:35	. . .		Th	9	0:40	7:05	13:10	19:32
			3.6	8.0	3.6	. . .				3.6	8.1	3.5	. . .				8.8	2.8	9.0	2.5
A	S	10	0:27	7:00	13:00	19:29		Tu	10	0:37	7:05	13:08	19:33		F	10	1:37	8:00	14:05	20:25
			8.0	3.5	8.2	3.3				8.3	3.2	8.5	3.0				9.3	2.2	9.7	1.8
	M	11	1:32	7:59	14:00	20:24	E	W	11	1:36	8:00	14:02	20:23		S	11	2:30	8:51	14:55	21:16
			8.4	3.0	8.7	2.7				8.8	2.6	9.1	2.3				10.0	1.5	10.4	1.1
	Tu	12	2:25	8:48	14:49	21:09		Th	12	2:25	8:45	14:48	21:08		S	12	3:20	9:40	15:44	22:02
			9.0	2.3	9.3	2.0				9.5	1.9	9.9	1.5				10.7	0.8	11.1	0.4
E	W	13	3:09	9:29	15:29	21:47		F	13	3:10	9:27	15:32	21:50	●	M	13	4:08	10:25	16:31	22:50
			9.7	1.6	10.1	1.3				10.3	1.2	10.7	0.8				11.5	0.2	11.6	0.0
	Th	14	3:50	10:07	16:08	22:24		S	14	3:52	10:10	16:14	22:30	N	Tu	14	4:54	11:11	17:18	23:33
			10.4	1.0	10.7	0.7				11.0	0.5	11.3	0.2				11.8	—0.1	12.0	—0.2
●	F	15	4:28	10:41	16:44	23:00	●	S	15	4:35	10:50	16:55	23:12		W	15	5:40	11:57	18:04	. . .
			11.0	0.5	11.3	0.3				11.6	0.1	11.7	0.0				12.0	—0.2	12.0	. . .
	S	16	5:04	11:18	17:21	23:39		M	16	5:16	11:32	17:36	23:52		Th	16	0:20	6:25	12:43	18:48
			11.5	0.2	11.6	0.1				11.9	—0.1	11.9	—0.1				—0.2	11.9	0.0	11.8
	S	17	5:40	11:45	17:58	. . .		Tu	17	5:58	12:14	18:19	. . .	P	F	17	1:07	7:15	13:32	19:27
			11.7	0.1	11.7	. . .				11.9	0.0	11.8	. . .				0.1	11.6	0.3	11.4
	M	18	0:14	6:17	12:32	18:36	N	W	18	0:37	6:40	12:57	19:02		S	18	1:57	8:02	14:27	20:28
			0.1	11.7	0.2	11.5				0.1	11.7	0.3	11.5				0.6	11.1	0.8	10.9
	Tu	19	0:52	6:57	13:12	19:17		Th	19	1:20	7:25	13:43	19:50		S	19	2:48	8:57	15:16	21:25
			0.4	11.4	0.6	11.2				0.5	11.2	0.8	10.9				1.1	10.6	1.3	10.3
N	W	20	1:33	7:39	13:59	20:02		F	20	2:08	8:15	14:33	20:42	☽ E	M	20	3:46	9:54	16:16	22:25
			0.8	10.9	1.1	10.6				1.1	10.6	1.4	10.3				1.6	10.1	1.8	9.9
	Th	21	2:18	8:27	14:45	20:52		S	21	3:00	9:09	15:32	21:41		Tu	21	4:49	10:59	17:22	23:32
			1.4	10.3	1.7	10.0				1.6	10.0	1.9	9.8				2.0	9.7	2.1	9.6
	F	22	3:12	9:21	15:44	21:52	☽ P	S	22	4:03	10:14	16:36	22:49		W	22	5:55	12:05	18:30	. . .
			2.0	9.7	2.3	9.4				2.1	9.6	2.3	9.4				2.1	9.5	2.1	. . .
☽	S	23	4:16	10:27	16:51	23:05		M	23	5:12	11:23	17:48	23:58		Th	23	0:37	7:08	13:10	19:34
			2.5	9.2	2.7	9.1				2.3	9.4	2.3	9.4				9.5	2.0	9.7	1.9
	S	24	5:30	11:41	18:09	. . .	E	Tu	24	6:23	12:33	19:00	. . .		F	24	1:42	8:04	14:10	20:32
			2.7	9.2	2.6	. . .				2.2	9.5	2.0	. . .				9.8	1.7	9.9	1.5
	M	25	0:20	6:47	12:55	19:21		W	25	1:06	7:30	13:39	20:00		S	25	2:40	9:00	15:05	21:26
			9.2	2.4	9.4	2.1				9.7	1.8	9.9	1.5				10.1	1.3	10.3	1.1
P	Tu	26	1:30	7:55	14:02	20:25		Th	26	2:08	8:28	14:35	20:55		S	26	3:30	9:50	15:55	22:14
			9.7	1.7	10.1	1.3				10.2	1.2	10.5	0.9				10.5	0.9	10.7	0.8
E	W	27	2:30	8:51	14:58	21:17		F	27	3:02	9:21	15:26	21:45	S ○	M	27	4:19	10:35	16:40	22:57
			10.5	0.9	10.8	0.5				10.7	0.7	11.0	0.4				10.8	0.7	10.9	0.6
	Th	28	3:24	9:40	15:47	22:06		S	28	3:50	10:08	16:02	22:31		Tu	28	5:00	11:18	17:20	23:40
			11.2	0.2	11.5	—0.1				11.2	0.3	11.3	0.1				10.9	0.6	10.9	0.7
○	F	29	4:10	10:27	16:33	22:50	○	S	29	4:34	10:54	16:57	23:15		W	29	5:42	12:00	18:00	. . .
			11.8	—0.3	12.0	—0.5				11.5	0.1	11.5	0.1				10.9	0.8	10.8	. . .
	S	30	4:54	11:12	17:17	23:32		M	30	5:17	11:35	17:37	23:55		Th	30	0:17	6:18	12:30	18:37
			12.1	—0.5	12.1	—0.4				11.5	0.2	11.4	0.3				0.9	10.6	1.1	10.5
							S	Tu	31	5:58	12:15	18:17	. . .							
										11.2	0.5	11.1	. . .							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Queenstown Mean Local Civil, for the meridian 8° 16′ W.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.								AUGUST.								SEPTEMBER.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	0:54	6:55	13:12	19:12		E	M	1	1:35	7:36	13:50	19:52			Th	1	2:12	8:18	14:32	20:39	
			1.3	10.3	1.5	10.1					1.7	10.1	1.8	9.9					1.8	10.0	2.0	9.9	
	S	2	1:30	7:30	13:47	19:48			Tu	2	2:08	8:10	14:25	20:30			F	2	2:54	9:03	15:17	21:28	
			1.8	9.9	2.0	9.7					2.0	9.8	2.1	9.7					2.1	9.6	2.4	9.4	
A	S	3	2:05	8:05	14:26	20:24			W	3	2:43	8:50	15:03	21:11		☾	S	3	3:45	9:58	16:16	22:30	
			2.2	9.5	2.4	9.3					2.3	9.5	2.4	9.4					2.6	9.2	2.7	9.1	
	M	4	2:44	8:44	15:02	21:05		☾	Th	4	3:30	9:34	15:50	22:01		N	S	4	4:50	11:02	17:27	23:40	
			2.6	9.2	2.7	9.1					2.6	9.3	2.7	9.1					2.9	9.0	2.9	8.9	
E	Tu	5	3:20	9:26	15:45	21:52			F	5	4:18	10:30	16:50	23:01			M	5	6:06	12:19	18:46	. . .	
☾			2.8	8.9	3.0	8.9					2.8	9.0	2.9	9.0					2.9	9.0	2.7	. . .	
	W	6	4:09	10:17	16:38	22:45			S	6	5:24	11:35	18:00	. . .			Tu	6	0:57	7:23	13:32	19:58	
			3.1	8.8	3.1	8.8					2.9	9.0	2.8	. . .					9.2	2.4	9.5	2.0	
	Th	7	5:07	11:15	17:38	23:46			S	7	0:11	6:37	12:46	19:12			W	7	2:06	8:29	14:37	21:00	
			3.1	8.8	3.0	8.8					9.0	2.7	9.2	2.5					9.9	1.5	10.3	1.1	
	F	8	6:10	12:19	18:45	. . .		N	M	8	1:21	7:46	13:55	20:18			Th	8	3:07	9:27	15:33	21:54	
			2.9	9.0	2.7	. . .					9.4	2.1	9.8	1.7					10.8	0.6	11.4	0.1	
	S	9	0:51	7:15	13:22	19:45			Tu	9	2:27	8:50	14:56	21:18		P	F	9	4:00	10:20	16:25	22:42	
			9.2	2.5	9.4	2.2					10.1	1.3	10.5	0.9		●			11.7	—0.3	12.0	—0.6	
	S	10	1:53	8:17	14:22	20:45			W	10	3:25	9:46	15:52	22:11		E	S	10	4:48	11:06	17:10	23:29	
			9.7	1.8	10.1	1.4					11.0	0.5	11.4	0.1					12.3	—0.8	12.6	—1.0	
N	M	11	2:52	9:14	15:18	21:38		●	Th	11	4:18	10:36	16:43	23:00			S	11	5:35	11:52	17:57	. . .	
			10.4	1.1	10.8	0.7					11.7	—0.2	12.0	—0.5					12.7	—1.1	12.8	. . .	
	Tu	12	3:45	10:06	16:11	22:30		P	F	12	5:07	11:25	17:30	23:47			M	12	0:12	6:20	12:35	18:40	
			11.2	0.3	11.5	0.0					12.3	—0.7	12.5	—0.8					—1.1	12.7	—0.9	12.6	
●	W	13	4:36	10:55	17:02	23:15			S	13	5:55	12:10	18:17	. . .			Tu	13	0:57	7:02	13:20	19:25	
			11.8	—0.2	12.0	—0.4					12.6	—0.9	12.6	. . .					—0.7	12.3	—0.5	12.0	
	Th	14	5:24	11:42	17:47	. . .		E	S	14	0:33	6:40	12:57	19:02			W	14	1:45	7:47	14:05	20:12	
			12.2	—0.5	12.2	. . .					—0.8	12.5	—0.7	12.4					—0.2	11.7	0.2	11.3	
P	F	15	0:05	6:11	12:30	18:35			M	15	1:20	7:25	13:43	19:48			Th	15	2:29	8:35	14:53	21:00	
			—0.5	12.3	—0.5	12.2					—0.6	12.2	—0.3	11.9					0.7	10.8	1.2	10.3	
	S	16	0:52	6:58	13:16	19:22			Tu	16	2:07	8:12	14:30	20:36		☽	F	16	3:20	9:25	15:50	21:55	
			—0.4	12.1	—0.3	11.9					0.0	11.6	0.4	11.2					1.6	9.9	2.0	9.5	
	S	17	1:43	7:46	14:05	20:12			W	17	2:56	9:02	15:23	21:29		S	S	17	4:19	10:25	16:52	23:00	
			—0.1	11.7	0.2	11.5					0.7	10.8	1.1	10.4					2.4	9.1	2.8	8.8	
E	M	18	2:30	8:37	14.57	21:02		☽	Th	18	3:50	9:57	16:19	22:27			S	18	5:26	11:34	18:04	. . .	
			0.5	11.2	0.7	10.8					1.5	10.0	1.9	9.6					3.0	8.5	3.2	. . .	
☽	Tu	19	3:22	9:30	15:50	22:00			F	19	4:51	10:59	17:24	23:32			M	19	0:10	6:42	12:40	19:19	
			1.1	10.5	1.4	10.2					2.2	9.3	2.6	9.0					8.4	3.2	8.4	3.1	
	W	20	4:20	10:28	16:50	23:00			S	20	5:59	12:08	18:36	. . .			Tu	20	1:25	7:50	13:56	20:20	
			1.7	9.9	1.9	9.7					2.7	8.8	2.8	. . .					8.5	2.9	8.6	2.7	
	Th	21	5:24	11:31	17:57	. . .		S	S	21	0:44	7:12	13:20	19:47			W	21	2:27	8:45	14:51	21:10	
			2.2	9.4	2.3	. . .					8.8	2.7	8.8	2.6					8.9	2.4	9.2	2.2	
	F	22	0:07	6:31	12:40	19:07			M	22	1:54	8:18	14:23	20:48			Th	22	3:12	9:31	15:35	21:54	
			9.3	2.3	9.2	2.3					8.9	2.5	9.1	2.2					9.5	1.9	9.7	1.6	
	S	23	1:14	7:38	13:46	20:11			Tu	23	2:52	9:14	15:17	21:36		A	F	23	3:53	10:11	16:12	22:30	
			9.2	2.2	9.4	2.1					9.3	2.0	9.5	1.8					10.0	1.3	10.3	1.1	
S	S	24	2:17	8:40	14:45	21:06			W	24	3:41	10:00	16:00	22:20		○	S	24	4:29	10:46	16:46	23:00	
			9.5	1.9	9.7	1.7					9.8	1.6	10.0	1.3		E			10.5	0.9	10.7	0.8	
	M	25	3:12	9:34	15:38	21:58			Th	25	4:24	10:40	16:40	22:57			S	25	5:02	11:20	17:20	23:35	
			9.9	1.5	10.1	1.3					10.2	1.2	10.4	1.0					10.9	0.7	11.0	0.6	
	Tu	26	4:00	10:20	16:24	22:42		○	F	26	5:00	11:15	17:15	23:33			M	26	5:35	11:50	17:51	. . .	
			10.2	1.2	10.4	1.0					10.6	0.9	10.7	0.9					11.1	0.6	11.2	. . .	
○	W	27	4:45	11:00	17:03	23:20		A	S	27	5:32	11:50	17:47	. . .			Tu	27	0:05	6:08	12:22	18:25	
			10.5	1.0	10.6	0.9					10.8	0.8	10.8	. . .					0.6	11.2	0.7	11.1	
	Th	28	5:23	11:40	17:41	23:58		E	S	28	0:05	6:05	12:20	18:20			W	28	0:39	6:40	12:55	18:58	
			10.6	0.9	10.7	1.0					0.9	10.8	0.9	10.8					0.7	11.0	0.9	10.9	
	F	29	6:00	12:15	18:16	. . .			M	29	0:35	6:35	12:50	18:50			Th	29	1:13	7:17	13:30	19:35	
			10.6	1.0	10.6	. . .					1.0	10.8	1.1	10.7					1.0	10.8	1.2	10.6	
A	S	30	0:31	6:31	12:47	18:47			Tu	30	1:05	7:07	13:22	19:23			F	30	1:50	7:55	14:10	20:17	
			1.2	10.5	1.3	10.4					1.2	10.6	1.3	10.5					1.4	10.4	1.7	10.1	
	S	31	1:03	7:03	13:20	19:19			W	31	1:38	7:40	13:55	20:00									
			1.4	10.3	1.6	10.2					1.4	10.3	1.6	10.2									

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is the datum of soundings on the Admiralty Charts for this region, and which is 5.8 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Queenstown Mean Local Civil, for the Meridian 8° 16′ W.; 0ʰ is midnight, 12ʰ is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

| OCTOBER. | | |

JANUARY.								FEBRUARY.								MARCH.							
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.					Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				
	F	1	4:55	10:55	17:27	23:28		○	M	1	0:00	6:30	12:31	18:55		P	Tu	1	6:10	12:18	18:36	. . .	
			1.2	12.0	0.7	12.2					12.4	0.0	12.2	0.0					0.1	12.1	0.1	. . .	
N	S	2	5:55	11:52	18:23	. . .		P	Tu	2	0:58	7:20	13:23	19:43		○	W	2	0:38	7:03	13:10	19:23	
			0.5	12.3	0.2	. . .					12.9	—0.7	12.5	—0.4					13.0	—0.7	12.6	—0.6	
○	S	3	0:20	6:49	12:45	19:13			W	3	1:43	8:09	14:12	20:28		E	Th	3	1:28	7:51	13:57	20:10	
			12.6	—0.1	12.5	—0.1					13.3	—1.1	12.6	—0.7					13.6	—1.2	12.8	—1.0	
P	M	4	1:09	7:39	13:35	19:58		E	Th	4	2:30	8:58	14:58	21:11			F	4	2:14	8:35	14:39	20:52	
			12.9	—0.6	12.5	—0.3					13.5	—1.3	12.5	—0.7					13.8	—1.4	12.8	—1.2	
	Tu	5	1:56	8:25	14:25	20:44			F	5	3:17	9:36	15:42	21:52			S	5	2:58	9:16	15:20	21:33	
			13.0	—0.8	12.4	—0.3					13.4	—1.1	12.2	—0.5					13.7	—1.3	12.6	—1.0	
	W	6	2:42	9:10	15:12	21:23			S	6	4:02	10:17	16:27	22:35			S	6	3:42	9:57	16:00	22:13	
			13.0	—0.9	12.1	—0.1					13.2	—0.8	11.9	—0.2					13.4	—0.8	12.2	—0.7	
	Th	7	3:29	9:58	16:00	22:08			S	7	4:49	11:03	17:13	23:20			M	7	4:26	10:38	16:42	22:55	
			12.9	—0.7	11.8	0.1					12.8	—0.2	11.5	0.3					12.8	—0.2	11.8	—0.1	
E	F	8	4:18	10:40	16:50	22:54		☾	M	8	5:40	11:50	18:05	. . .			Tu	8	5:12	11:20	17:28	23:40	
			12.6	0.6	11.4	0.5					12.3	0.5	11.2	. . .					12.2	0.5	11.3	0.5	
☾	S	9	5:10	11:27	17:43	23:43			Tu	9	0:09	6:36	12:40	19:03		☾	W	9	6:03	12:04	18:24	. . .	
			12.4	0.1	11.1	0.9					0.8	11.8	1.1	11.0					11.5	1.2	11.0	. . .	
	S	10	6:07	12:18	18:41	. . .			W	10	1:03	7:36	13:37	20:06		S	Th	10	0:32	7:00	12:59	19:25	
			12.1	0.6	11.0	. . .					1.3	11.4	1.7	11.0					1.2	11.0	1.9	10.8	
	M	11	0:37	7:07	13:14	19:43		S	Th	11	2:07	8:40	14:41	21:10			F	11	1:30	8:03	14:00	20:31	
			1.3	11.9	1.1	11.0					1.8	11.2	2.1	11.2					1.8	10.7	2.4	10.9	
	Tu	12	1:37	8:10	14:15	20:46			F	12	3:15	9:43	15:48	22:11			S	12	2:36	9:10	15:08	21:37	
			1.6	11.7	1.5	11.2					1.9	11.2	2.0	11.4					2.1	10.7	2.4	11.2	
	W	13	2:43	9:14	15:20	21:45			S	13	4:23	10:42	16:53	23:08			S	13	3:46	10:09	16:16	22:36	
			1.7	11.7	1.6	11.4					1.7	11.2	1.7	11.8					2.0	10.8	2.1	11.6	
	Th	14	3:49	10:14	16:24	22:43			S	14	5:25	11:38	17:49	. . .		A	M	14	4:50	11:06	17:18	23:30	
			1.6	11.7	1.5	11.8					1.2	11.4	1.1	. . .					1.6	11.2	1.4	12.0	
S	F	15	4:57	11:12	17:24	23:37			M	15	0:02	6:19	12:29	18:39			Tu	15	5:47	11:57	18:10	. . .	
			1.2	11.8	1.1	12.1					12.2	0.7	11.6	0.6					1.0	11.5	0.7	. . .	
	S	16	5:54	12:05	18:17	. . .		A	Tu	16	0:50	7:06	13:14	19:24			W	16	0:18	6:35	12:42	18:56	
			0.7	11.8	0.6	. . .		●			12.4	0.3	11.7	0.2					12.4	0.4	11.8	0.2	
●	S	17	0:28	6:45	12:55	19:04			W	17	1:30	7:46	13:49	20:02		●	Th	17	1:01	7:18	13:20	19:36	
			12.4	0.3	11.8	0.3					12.5	0.1	11.6	0.1		E			12.5	0.0	12.0	0.0	
	M	18	1:13	7:30	13:38	19:46			Th	18	2:04	8:22	14:20	20:37			F	18	1:36	7:56	13:52	20:13	
			12.5	0.2	11.6	0.2					12.4	0.0	11.5	0.2					12.6	—0.2	12.0	—0.1	
	Tu	19	1:52	8:10	14:13	20:24		E	F	19	2:35	8:57	14:47	21:10			S	19	2:08	8:31	14:22	20:47	
			12.4	0.1	11.4	0.4					12.2	0.1	11.5	0.4					12.5	—0.2	12.0	0.1	
A	W	20	2:28	8:46	14:43	20:59			S	20	3:01	9:28	15:10	21:40			S	20	2:36	9:04	14:47	21:19	
			12.2	0.2	11.2	0.6					12.2	0.3	11.6	0.6					12.4	0.0	12.0	0.3	
	Th	21	2:58	9:17	15:10	21:31			S	21	3:31	10:00	15:49	22:10			M	21	3:05	9:35	15:25	21:49	
			11.9	0.4	11.0	0.8					12.1	0.4	11.5	0.8					12.4	0.2	11.8	0.5	
	F	22	3:26	9:52	15:33	22:03			M	22	4:18	10:35	16:36	22:56			Tu	22	3:52	10:08	16:11	22:32	
			11.8	0.6	11.1	1.1					11.8	0.7	11.2	1.2					11.9	0.6	11.4	0.9	
E	S	23	3:55	10:26	16:12	22:34			Tu	23	5:04	11:22	17:22	23:42			W	23	4:37	10:53	16:56	23:18	
			11.8	0.7	11.1	1.3					11.4	1.2	10.9	1.6					11.5	1.2	11.0	1.3	
	S	24	4:42	11:01	17:00	23:20		☽	W	24	5:50	12:08	18:09	. . .		N	Th	24	5:22	11:39	17:42	. . .	
			11.5	0.9	10.9	1.6					11.1	1.5	10.7	. . .		☽			11.1	1.7	10.7	. . .	
☽	M	25	5:29	11:48	17:48	. . .			Th	25	0:29	6:37	12:55	18:58			F	25	0:05	6:09	12:26	18:30	
			11.3	1.2	10.8	. . .					1.9	10.9	1.8	10.7					1.6	10.8	2.1	10.6	
	Tu	26	0:08	6:18	12:37	18:39		N	F	26	1:18	7:33	13:53	20:13			S	26	0:54	7:12	13:24	19:47	
			1.9	11.2	1.4	10.8					2.0	10.8	2.2	10.5					1.8	10.5	2.6	10.4	
	W	27	0:57	7:08	13:27	19:38			S	27	2:29	8:49	15:13	21:30			S	27	2:05	8:37	14:45	21:07	
			2.0	11.1	1.6	10.8					2.2	10.7	2.4	11.0					2.1	10.4	2.7	10.9	
	Th	28	1:49	8:09	14:30	20:50			S	28	3:52	10:10	16:34	22:40			M	28	3:28	9:54	16:09	22:19	
			2.0	11.1	1.9	10.9					1.9	11.0	1.9	11.6					1.9	10.8	2.2	11.6	
	F	29	3:03	9:21	15:45	21:58			M	29	5:08	11:13	17:40	23:43		P	Tu	29	4:45	11:02	17:15	23:23	
			2.1	11.2	1.8	11.3					1.0	11.6	1.0	12.4					1.1	11.4	1.2	12.4	
N	S	30	4:22	10:28	17:00	23:02										E	W	30	5:48	12:00	18:14	. . .	
			1.6	11.5	1.3	11.8													0.2	12.1	0.2	. . .	
	S	31	5:31	11:33	18:02	. . .										○	Th	31	0:19	6:43	12:52	19:05	
			0.8	11.9	0.7	. . .													13.1	—0.6	12.7	—0.6	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the German Charts for this region, and which is 6.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard for the meridian 15° E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

APRIL.							MAY.							JUNE.						
Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.				Moon.	Day of— W.	Day of— Mo.	Time and Height of High and Low Water.			
	F	1	1:10	7:28	13:35	19:47		S	1	1:34	7:50	13:54	20:10		W	1	2:39	8:48	14:51	21:11
			13.6	—1.1	13.0	—1.1				13.4	0.2	12.9	—1.0				12.0	0.1	12.4	—0.2
	S	2	1:54	8:12	14:16	20:29		M	2	2:17	8:29	14:32	20:50		Th	2	3:16	9:26	15:28	21:48
			13.7	—1.2	13.0	—1.3				13.1	—0.6	12.7	—0.9				11.5	0.5	12.0	0.2
	S	3	2:37	8:50	14:55	21:10	S	Tu	3	2:58	9:09	15:10	21:30		F	3	3:51	10:01	16:06	22:27
			13.6	—1.1	12.8	—1.2				12.6	—0.2	12.5	—0.6				11.0	0.9	11.7	0.6
	M	4	3:18	9:31	15:33	21:50		W	4	3:37	9:47	15:48	22:10		S	4	4:27	10:39	16:44	23:07
			13.2	—0.6	12.4	—0.8				12.0	0.3	12.0	0.0				10.7	1.3	11.4	0.9
	Tu	5	4:00	10:10	16:12	22:30		Th	5	4:15	10:24	16:28	22:50	A	S	5	5:07	11:20	17:28	23:50
			12.6	0.0	12.0	—0.3				11.4	0.8	11.6	0.5				10.4	1.7	11.1	1.2
S	W	6	4:42	10:50	16:55	23:14		F	6	4:57	11:05	17:13	23:32	☾	M	6	5:55	12:04	18:21	. .
			11.9	0.6	11.5	0.4				10.8	1.4	11.2	1.0				10.3	2.0	11.0	. .
☾	Th	7	5:29	11:32	17:45	23:59	☾	S	7	5:44	11:49	18:07	. . .	E	Tu	7	0:38	6:50	12:55	19:18
			11.2	1.3	11.1	1.0				10.4	1.9	10.9	. . .				1.4	10.3	2.1	11.0
	F	8	6:22	12:22	18:44	. . .	A	S	8	0:22	6:39	12:40	19:06		W	8	1:30	7:51	13:54	20:17
			10.6	1.9	10.9	. . .				1.5	10.2	2.2	10.9				1.5	10.6	2.1	11.2
	S	9	0:54	7:21	13:18	19:48		M	9	1:15	7:40	13:40	20:07		Th	9	2:28	8:51	14:59	21:18
			1.6	10.4	2.4	10.9				1.8	10.2	2.4	11.0				1.5	11.0	2.0	11.5
A	S	10	1:55	8:22	14:23	20:54		Tu	10	2:15	8:43	14:45	21:08		F	10	3:32	9:49	16:03	22:10
			2.0	10.4	2.5	11.1				1.8	10.6	2.3	11.3				1.3	11.4	1.7	11.9
	M	11	3:00	9:28	15:31	21:54	E	W	11	3:18	9:42	15:50	22:05		S	11	4:33	10:44	17:04	23:03
			2.0	10.6	2.3	11.4				1.7	11.1	1.9	11.7				1.0	11.9	1.1	12.1
	Tu	12	4:05	10:25	16:35	22:48		Th	12	4:19	10:35	16:50	22:57		S	12	5:30	11:34	17:58	23:54
			1.7	11.1	1.8	11.8				1.2	11.5	1.4	12.1				0.5	12.2	0.6	12.3
E	W	13	5:04	11:17	17:31	23:38		F	13	5:16	11:25	17:43	23:44	●	M	13	6:23	12:22	18:48	. . .
			1.1	11.6	1.0	12.2				0.7	12.0	0.8	12.4				0.2	12.5	0.1	. .
	Th	14	5:56	12:04	18:21	. . .		S	14	6:07	12:10	18:32	. . .	N	Tu	14	0:42	7:11	13:06	19:36
			0.5	12.0	0.4	. . .				0.2	12.4	0.2	. . .				12.5	—0.1	12.7	—0.3
●	F	15	0:23	6:42	12:45	19:04	●	S	15	0:28	6:53	12:50	19:16		W	15	1:28	7:56	13:49	20:18
			12.5	0.0	12.3	0.0				12.5	0.8	12.6	—0.1				12.5	—0.1	12.7	—0.4
	S	16	1:02	7:24	13:21	19:44		M	16	1:08	7:36	13:29	19:57		Th	16	2:12	8:39	14:32	21:08
			12.6	—0.3	12.5	—0.2				12.6	—0.3	12.6	—0.3				12.3	0.0	12.6	—0.4
	S	17	1:37	8:02	13:55	20:21		Tu	17	1:47	8:17	14:07	20:38	P	F	17	2:57	9:20	15:14	21:46
			12.7	—0.3	12.5	—0.2				12.6	—0.1	12.6	—0.3				12.0	0.3	12.5	—0.4
	M	18	2:11	8:38	14:26	20:57	N	W	18	2:27	8:56	14:44	21:18		S	18	3:45	10:02	16:02	22:32
			12.6	—0.2	12.4	—0.1				12.4	0.2	12.4	—0.1				11.6	0.6	12.2	—0.1
	Tu	19	2:43	9:14	14:58	21:32		Th	19	3:06	9:35	15:22	21:58		S	19	4:35	10:47	16:53	23:19
			12.5	0.1	12.2	0.1				12.1	0.5	12.2	0.1				11.3	1.0	11.9	0.2
N	W	20	3:20	9:50	15:40	22:10		F	20	3:49	10:15	16:05	22:42	☽ E	M	20	5:32	11:35	17:52	. . .
			12.2	0.6	11.9	0.4				11.7	1.0	11.8	0.4				10.9	1.3	11.7	. . .
	Th	21	4:03	10:28	16:28	22:51		S	21	4:40	11:00	16:57	23:32		Tu	21	0:12	6:32	12:31	18:56
			11.8	1.1	11.4	0.7				11.1	1.5	11.4	0.7				0.6	10.7	1.7	11.7
	F	22	4:52	11:10	17:10	23:40	☽ P	S	22	5:41	11:51	18:02	. . .		W	22	1:09	7:38	13:32	20:01
			11.3	1.6	11.1	1.1				10.6	2.0	11.1	. . .				1.0	10.8	1.8	11.8
☽	S	23	5:45	12:02	18:10	. . .		M	23	0:28	6:51	12:51	19:15		Th	23	2:11	8:43	14:38	21:08
			10.8	2.1	10.8	. . .				1.1	10.4	2.2	11.1				1.3	11.0	1.8	11.9
	S	24	0:38	7:02	13:07	19:30	E	Tu	24	1:32	8:03	13:58	20:26		F	24	3:17	9:43	15:47	22:09
			1.5	10.3	2.5	10.7				1.3	10.5	2.3	11.5				1.3	11.4	1.5	12.1
	M	25	1:49	8:21	14:23	20:47		W	25	2:40	9:12	15:10	21:33		S	25	4:22	10:40	16:52	23:08
			1.7	10.4	2 6	11.2				1.4	10.9	2.0	12.0				1.2	11.8	1.0	12.2
P	Tu	26	3:05	9:34	15:38	21:58		Th	26	3:48	10:12	16:18	22:35		S	26	5:23	11:35	17:51	. . .
			1.6	10.8	2.2	11.8				1.1	11.5	1.4	12.4				0.8	12.2	0.5	. . .
E	W	27	4:17	10:38	16:47	23:00		F	27	4:53	11:08	17:21	23:32	S ○	M	27	0:03	6:17	12:27	18:45
			1.1	11.4	1.4	12.5				0.7	12.0	0.6	12.7				12.2	0.4	12.5	0.1
	Th	28	5:21	11:34	17:47	23:55		S	28	5:50	12:01	18:15	. . .		Tu	28	0:55	7:05	13:15	19:31
			0.4	12.1	0.4	13.0				0.2	12.4	0.0	. . .				12.2	0.2	12.6	—0.1
○	F	29	6:14	12:25	18:40	. . .	☾	S	29	0:26	6:42	12:50	19:05		W	29	1:41	7:49	13:56	20:15
			—0.2	12.6	—0.4	. . .				12.8	—0.1	12.7	—0.4				12.0	0.2	12.5	—0.1
	S	30	0:48	7:03	13:12	19:27		M	30	1:15	7:28	13:33	19:51		Th	30	2:22	8:28	14:34	20:52
			13.3	—0.6	12.9	—0.9				12.8	—0.2	12.7	—0.6				11.6	0.3	12.3	0.1
							S	Tu	31	2:00	8:09	14:13	20:32							
										12.5	—0.2	12.6	—0.5							

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the German Charts for this region, and which is 6.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard for the meridian 15° E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

JULY.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	F	1	2:56 11.3	9:05 0.5	15:10 12:1	21:28 0.3
	S	2	3:28 10.9	9:41 0.8	15:44 11.8	22:04 0.6
A	S	3	3:58 10.8	10:15 1.1	16:17 11.6	22:40 0.7
	M	4	4:31 10.7	10:52 1.4	16:52 11.5	23:18 1.0
E ☾	Tu	5	5:10 10.8	11:30 1.6	17:33 11.4	23:58 1.1
	W	6	5:58 10.8	12:13 1.7	18:23 11.3	. . . . . .
	Th	7	0:45 1.2	6:57 10.8	13:05 1.8	19:22 11.2
	F	8	1:40 1.4	7:59 10.9	14:06 2.0	20:24 11.3
	S	9	2:42 1.5	9:02 11.2	15:14 1.9	21:26 11.5
	S	10	3:49 1.4	10:02 11.5	16:24 1.5	22:27 11.8
	M	11	4:56 1.1	11:00 12.0	17:27 0.9	23:26 12.0
N	Tu	12	5:55 0.6	11:55 12.4	18:24 0.3	. . . . . .
●	W	13	0:20 12.2	6:49 0.2	12:45 12.7	19:15 —0.3
	Th	14	1:11 12.4	7:38 —0.1	13:34 12.9	20:03 —0.6
P	F	15	2:00 12.4	8:23 —0.2	14:20 13.0	20:46 —0.8
	S	16	2:47 12.2	9:06 —0.2	15:05 13.0	21:31 —0.3
	S	17	3:34 12.0	9:48 0.0	15:52 12.8	22:16 —0.6
E	M	18	4:22 11.7	10:31 0.2	16:42 12.6	23:02 —0.2
☽	Tu	19	5:12 11.3	11:18 0.6	17:35 12.3	23:49 0.3
	W	20	6:07 11.1	12:08 0.9	18:33 12.0	. . . . . .
	Th	21	0:42 0.8	7:07 11.0	13:05 1.3	19:34 11.8
	F	22	1:40 1.3	8:10 11.0	14:07 1.6	20:40 11.6
	S	23	2:42 1.6	9:13 11.2	15:15 1.7	21:43 11.6
S	S	24	3:50 1.7	10:12 11.6	16:23 1.4	22:43 11.6
	M	25	4:54 1.4	11:10 11.9	17:26 1.0	23:40 11.7
	Tu	26	5:52 0.9	12:04 12.3	18:22 0.5	. . . . . .
○	W	27	0:33 11.8	6:43 0.5	12:54 12.5	19:11 0.2
	Th	28	1:21 11.7	7:28 0.3	13:38 12.5	19:52 0.1
	F	29	2:01 11.6	8:08 0.2	14:15 12.4	20:32 0.1
A	S	30	2:35 11.3	8:45 0.4	14:48 12.2	21:06 0.2
	S	31	3:01 11.1	9:18 0.6	15:18 11.9	21:38 0.4

AUGUST.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
E	M	1	3:28 11.1	9:51 0.8	15:46 11.8	22:10 0.5
	Tu	2	3:55 11.2	10:24 1.0	16:17 11.8	22:46 0.7
	W	3	4:33 11.2	10:57 1.2	17:02 11.5	23:22 0.9
☾	Th	4	5:21 11.1	11:41 1.5	17:49 11.3	. . . . . .
	F	5	0:09 1.2	6:10 11.0	12:29 1.7	18:38 11.2
	S	6	0:58 1.4	7:05 10.9	13:19 1.8	19:35 11.1
	S	7	1:55 1.7	8:15 10.8	14:27 2.0	20:46 11.1
N	M	8	3:07 1.9	9:24 11.2	15:42 1.8	21:54 11.3
	Tu	9	4:21 1.6	10:30 11.7	16:55 1.2	23:00 11.7
	W	10	5:28 1.0	11:30 12.2	17:58 0.4	. . . . . .
●	Th	11	0:01 12.1	6:26 0.4	12:25 12.7	18:53 —0.4
P	F	12	0:54 12.4	7:17 —0.2	13:15 13.2	19:42 —0.9
	S	13	1:44 12.6	8:03 —0.6	14:02 13.4	20:28 —1.2
E	S	14	2:30 12.6	8:46 —0.7	14:48 13.5	21:11 —1.2
	M	15	3:15 12.4	9:29 —0.7	15:34 13.3	21:52 —0.9
	Tu	16	3:58 12.2	10:10 —0.5	16:21 13.0	22:38 —0.5
	W	17	4:44 11.8	10:54 —0.1	17:11 12.5	23:22 0.1
☽	Th	18	5:34 11.3	11:40 0.4	18:04 12.0	. . . . . .
	F	19	0:11 0.8	6:31 11.1	12:34 1.0	19:04 11.5
	S	20	1:06 1.5	7:32 11.0	13:34 1.5	20:09 11.2
S	S	21	2:07 2.0	8:38 11.1	14:40 1.8	21:15 11.1
	M	22	3:14 2.1	9:41 11.4	15:50 1.7	22:15 11.2
	Tu	23	4:21 1.9	10:41 11.7	16:56 1.4	23:13 11.3
	W	24	5:22 1.3	11:36 12.1	17:54 0.9	. . . . . .
	Th	25	0:05 11.6	6:16 0.7	12:27 12.5	18:45 0.4
○	F	26	0:58 11.7	7:02 0.3	13:12 12.6	19:27 0.1
A	S	27	1:34 11.8	7:44 0.1	13:49 12.5	20:06 0.0
E	S	28	2:06 11.7	8:21 0.1	14:21 12.3	20:40 0.1
	M	29	2:34 11.6	8:55 0.3	14:50 12.2	21:13 0.2
	Tu	30	3:00 11.5	9:28 0.5	15:15 12.1	21:44 0.4
	W	31	3:23 11.6	9:57 0.7	15:50 11.9	22:16 0.7

SEPTEMBER.

Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.			
	Th	1	4:08 11.4	10:30 1.0	16:35 11.5	22:54 1.0
	F	2	4:54 11.0	11:16 1.4	17:21 11.2	23:40 1.4
☾	S	3	5:41 10.8	12:03 1.7	18:08 11.0	. . . . . .
N	S	4	0:27 1.8	6:30 10.7	12:52 1.8	18:59 10.9
	M	5	1:19 2.0	7:35 10.6	13:58 2.0	20:16 10.7
	Tu	6	2:32 2.3	8:52 10.9	15:11 1.9	21:31 11.0
	W	7	3:53 2.1	10:04 11.4	16:30 1.3	22:43 11.4
	Th	8	5:02 1.4	11:09 12.2	17:35 0.5	23:44 11.9
P ●	F	9	6:04 0.6	12:06 12.8	18:32 —0.4	. . . . . .
E	S	10	0:39 12.5	6:56 —0.2	12:58 13.4	19:23 —1.0
	S	11	1:27 12.8	7:43 —0.8	13:45 13.7	20:08 —1.3
	M	12	2:11 12.9	8:27 —1.1	14:30 13.7	20:50 —1.3
	Tu	13	2:58 12.7	9:09 —1.1	15:15 13.5	21:31 —1.0
	W	14	3:34 12.5	9:50 —0.8	16:00 13.0	22:14 —0.4
	Th	15	4:16 12.0	10:32 —0.4	16:46 12.4	22:55 0.3
☽	F	16	5:03 11.5	11:18 0.2	17:38 11.6	23:41 1.0
S	S	17	5:57 11.1	12:08 0.9	18:35 11.0	. . . . . .
	S	18	0:34 0.7	6:58 10.9	13:04 1.5	19:39 10.7
	M	19	1:32 2.2	8:04 11.0	14:07 1.9	20:45 10.7
	Tu	20	2:38 2.4	9:11 11.2	15:16 1.9	21:45 10.8
	W	21	3:47 2.2	10:10 11.6	16:23 1.7	22:43 11.1
	Th	22	4:51 1.6	11:07 12.0	17:22 1.1	23:35 11.5
A	F	23	5:46 1.0	11:56 12.3	18:13 0.6	. . . . . .
○ E	S	24	0:21 11.8	6:34 0.4	12:41 12.6	18:57 0.1
	S	25	1:03 12.0	7:17 0.0	13:20 12.6	19:36 —0.1
	M	26	1:36 12.1	7:55 0.0	13:52 12.5	20:12 —0.1
	Tu	27	2:05 12.0	8:29 0.1	14:21 12.3	20:46 0.1
	W	28	2:32 11.9	9:02 0.3	14:47 12.2	21:18 0.4
	Th	29	2:59 11.9	9:33 0.5	15:21 12.0	21:50 0.8
	F	30	3:42 11.5	10:07 0.8	16:06 11.5	22:24 1.1

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the German Charts for this region, and which is 6.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard, for the meridian 15° E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

OCTOBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	S	1	4:25	10:49	16:51	23:09	
			11.1	1.1	11.1	1.6	
N ☾	S	2	5:11	11:36	17:38	23:55	
			10.8	1.5	10.9	2.0	
	M	3	5:59	12:26	18:32	. . .	
			10.7	1.7	10.6	. . .	
	Tu	4	0:51	7:05	13:30	19:57	
			2.4	10.5	1.9	10.3	
	W	5	2:06	8:28	14:47	21:15	
			2.7	10.7	1.9	10.6	
	Th	6	3:27	9:42	16:05	22:26	
			2.4	11.4	1.4	11.2	
	F	7	4:38	10:48	17:12	23:26	
			1.7	12.2	0.6	11.9	
P E	S	8	5:40	11:47	18:11	. . .	
			0.7	12.9	—0.3	. . .	
●	S	9	0:19	6:34	12:38	19:01	
			12.5	—0.3	13.4	—0.9	
	M	10	1:07	7:22	13:26	19:47	
			12.9	—0.9	13.7	—1.2	
	Tu	11	1:50	8:06	14:11	20:28	
			13.1	—1.2	13.6	—1.1	
	W	12	2:31	8:48	14:55	21:11	
			12.9	—1.2	13.3	—0.7	
	Th	13	3:11	9:30	15:38	21:51	
			12.6	—0.9	12.7	0.1	
S	F	14	3:52	10:12	16:22	22:32	
			12.2	—0.4	12.0	0.5	
	S	15	4:36	10:55	17:10	23:16	
			11.7	0.2	11.3	1.2	
☽	S	16	5:26	11:43	18:03	. . .	
			11.2	0.8	10.6	. . .	
	M	17	0:03	6:25	12:36	19:04	
			1.8	11.0	1.4	10.3	
	Tu	18	0:59	7:28	13:34	20:09	
			2.3	10.9	1.8	10.4	
	W	19	2:01	8:34	14:38	21:11	
			2.5	11.1	1.9	10.6	
A	Th	20	3:07	9:35	15:42	22:06	
			2.3	11.5	1.7	11.0	
	F	21	4:12	10:30	16:43	22:58	
			1.9	11.8	1.2	11.5	
E	S	22	5:10	11:20	17:36	23:45	
			1.2	12.2	0.6	11.9	
	S	23	6:01	12:05	18:23	. . .	
			0.6	12.5	0.2	. . .	
○	M	24	0:28	6:45	12:46	19:05	
			12.2	0.2	12.5	—0.1	
	Tu	25	1:05	7:26	13:21	19:44	
			12.4	0.0	12.5	—0.1	
	W	26	1:37	8:04	13:58	20:21	
			12.4	0.0	12.4	0.0	
	Th	27	2:09	8:39	14:24	20:57	
			12.3	0.1	12.2	0.4	
	F	28	2:37	9:14	14:56	21:30	
			12.2	0.3	12.0	0.8	
N	S	29	3:18	9:50	15:42	22:06	
			11.8	0.6	11.6	1.2	
	S	30	4:04	10:29	16:27	22:45	
			11.3	0.8	11.1	1.6	
☾	M	31	4:50	11:15	17:12	23:32	
			11.0	1.1	10.8	2.1	

NOVEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water				
	Tu	1	5:37	12:08	18:18	. . .	
			10.8	1.4	10.3	. . .	
	W	2	0:30	6:46	13:12	19:41	
			2.5	10.6	1.7	10.2	
	Th	3	1:42	8:08	14:26	20:58	
			2.7	10.9	1.7	10.6	
E	F	4	3:00	9:20	15:40	22:04	
			2.4	11.5	1.3	11.2	
P	S	5	4:12	10:26	16:47	23:02	
			1.7	12.2	0.7	11.9	
	S	6	5:15	11:25	17:46	23:56	
			0.8	12.8	0.0	12.4	
●	M	7	6:11	12:18	18:38	. . .	
			—0.1	13.2	—0.5	. . .	
	Tu	8	0:45	7:01	13:07	19:25	
			12.8	—0.7	13.3	—0.8	
	W	9	1:29	7:47	13:52	20:08	
			13.0	—1.0	13.2	—0.7	
	Th	10	2:10	8:28	14:35	20:49	
			12.9	—1.0	12.8	—0.4	
S	F	11	2:50	9:11	15:17	21:28	
			12.6	—0.7	12.2	0.1	
	S	12	3:30	9:50	15:59	22:08	
			12.3	—0.3	11.6	0.6	
	S	13	4:12	10:34	16:42	22:49	
			11.8	0.2	10.9	1.2	
	M	14	4:57	11:17	17:30	23:32	
			11.4	0.8	10.4	1.7	
☽	Tu	15	5:51	12:05	18:24	. . .	
			11.0	1.3	10.2	. . .	
	W	16	0:24	6:49	12:58	19:24	
			2.2	11.0	1.6	10.2	
A	Th	17	1:21	7:49	13:56	20:26	
			2.4	11.0	1.8	10.5	
E	F	18	2:22	8:50	14:56	21:23	
			2.3	11.3	1.7	11.0	
	S	19	3:26	9:47	15:57	22:16	
			2.0	11.6	1.4	11.4	
	S	20	4:27	10:38	16:54	23:06	
			1.6	11.9	0.9	11.9	
	M	21	5:22	11:25	17:45	23:52	
			1.0	12.2	0.4	12.2	
	Tu	22	6:11	12:10	18:33	. . .	
			0.5	12.3	0.1	. . .	
○	W	23	0:34	6:57	12:49	19:17	
			12.4	0.2	12.4	0.0	
	Th	24	1:11	7:39	13:28	19:57	
			12.5	0.0	12.3	0.0	
N	F	25	1:47	8:19	14:05	20:36	
			12.5	0.0	12.2	0.3	
	S	26	2:22	8:59	14:41	21:15	
			12.4	0.1	12.0	0.6	
	S	27	2:58	9:38	15:20	21:53	
			12.2	0.2	11.7	1.0	
	M	28	3:42	10:20	16:05	22:36	
			11.9	0.5	11.3	1.5	
	Tu	29	4:30	11:05	17:00	23:21	
			11.5	0.8	10.8	1.9	
☾	W	30	5:19	11:57	18:08	. . .	
			11.2	1.0	10.3	. . .	

DECEMBER.							
Moon.	Day of— W.	Mo.	Time and Height of High and Low Water.				
	Th	1	0:16	6:32	12:57	19:21	
			2.2	11.0	1.3	10.3	
E	F	2	1:20	7:46	14:08	20:33	
			2.4	11.2	1.5	10.6	
P	S	3	2:31	8:56	15:12	21:39	
			2.2	11.6	1.4	11.1	
	S	4	3:41	10:01	16:18	22:38	
			1.8	12.1	1.0	11.7	
	M	5	4:48	11:01	17:21	23:32	
			1.1	12.5	0.5	12.2	
	Tu	6	5:47	11:57	18:15	. . .	
			0.3	12.7	0.1	. . .	
●	W	7	0:24	6:41	12:50	19:05	
			12.6	—0.3	12.7	—0.2	
S	Th	8	1:11	7:29	13:37	19:49	
			12.8	—0.6	12.6	—0.2	
	F	9	1:58	8:12	14:20	20:30	
			12.8	—0.6	12.3	—0.1	
	S	10	2:33	8:53	14:59	21:09	
			12.6	—0.4	11.8	0.3	
	S	11	3:12	9:33	15:37	21:46	
			12.3	—0.1	11.3	0.6	
	M	12	3:52	10:12	16:15	22:26	
			12.0	0.3	10.8	1.1	
	Tu	13	4:32	10:52	16:55	23:04	
			11.6	0.7	10.5	1.5	
☽	W	14	5:14	11:34	17:39	23:49	
			11.3	1.1	10.3	1.8	
A E	Th	15	6:04	12:21	18:32	. . .	
			11.0	1.3	10.3	. . .	
	F	16	0:37	6:59	13:10	19:31	
			2.0	11.0	1.5	10.4	
	S	17	1:33	7:56	14:06	20:31	
			2.1	11.1	1.6	10.8	
	S	18	2:40	8:54	15:07	21:28	
			2.1	11.3	1.6	11.2	
	M	19	3:39	9:50	16:09	22:24	
			1.9	11.6	1.3	11.6	
	Tu	20	4:40	10:45	17:08	23:16	
			1.5	11.8	0.9	12.0	
	W	21	5:36	11:35	18:02	. . .	
			0.9	12.0	0.5	. . .	
○	Th	22	0:03	6:28	12:23	18:51	
			12.3	0.4	12.2	0.2	
N	F	23	0:47	7:15	13:07	19:36	
			12.5	0.0	12.3	0.1	
	S	24	1:29	8:00	13:50	20:18	
			12.6	—0.2	12.2	0.1	
	S	25	2:10	8:42	14:33	21:00	
			12.6	—0.3	12.0	0.3	
	M	26	2:51	9:24	15:16	21:40	
			12.5	—0.3	11.7	0.5	
P	Tu	27	3:32	10:08	16:01	22:22	
			12.4	—0.1	11.4	0.8	
	W	28	4:19	10:53	16:53	23:09	
			12.1	0.2	11.0	1.3	
E ☾	Th	29	5:13	11:42	17:52	23:59	
			11.8	0.5	10.6	1.6	
	F	30	6:16	12:36	18:57	. . .	
			11.5	0.9	10.6	. . .	
	S	31	0:56	7:23	13:36	20:04	
			1.8	11.5	1.3	10.7	

The tides are placed in the order of occurrence, with their times on the first line and heights on the second line of each day; a comparison of consecutive heights will indicate whether it is high or low water. The heights, in feet and tenths, are reckoned from Mean Low Water Springs, which is approximately the datum of soundings on the German Charts for this region, and which is 6.6 feet below mean sea level. To find the depth of water, add the tabular height to the soundings given on the chart, unless a minus (—) sign is before the height, in which case subtract it.

The time used is Cosmopolitan Standard for the meridian 15° E.; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon, (a. m.) all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:47 is 3:47 p. m.

●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator; A, P, moon in apogee or perigee.

For finding the height of the sea or tide at any intermediate hour between High and Low Water.

Range of Tide.	Subtract from height of High Water.						Add to height of Low Water.						Range of Tide.
	Hours before High Water.			Hours after High Water.			Hours before Low Water.			Hours after Low Water.			
	3	2	1	1	2	3	3	2	1	1	2	3	
Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
					EASTPORT, MAINE.								
12	5.9	3.0	0.8	0.8	2.5	5.2	5.5	2.8	0.8	0.9	3.2	6.1	12
13	6.4	3.3	0.8	0.8	2.8	5.6	6.0	3.0	0.8	1.0	3.5	6.6	13
14	6.9	3.6	0.9	0.9	3.0	6.1	6.5	3.3	0.9	1.1	3.8	7.1	14
15	7.4	3.8	1.0	1.0	3.3	6.6	7.0	3.6	1.0	1.2	4.0	7.6	15
16	8.0	4.1	1.1	1.1	3.6	7.0	7.5	3.9	1.0	1.3	4.3	8.1	16
17	8.5	4.3	1.2	1.2	3.8	7.5	8.0	4.2	1.1	1.4	4.6	8.6	17
18	8.9	4.6	1.3	1.2	4.1	8.0	8.5	4.5	1.1	1.5	4.9	9.2	18
19	9.4	4.9	1.4	1.3	4.4	8.4	9.0	4.8	1.2	1.6	5.2	9.6	19
20	9.9	5.2	1.5	1.4	4.6	8.9	9.5	5.0	1.3	1.7	5.5	10.1	20
21	10.4	5.4	1.6	1.5	4.9	9.4	10.0	5.4	1.4	1.8	5.8	10.6	21
22	11.0	5.7	1.7	1.6	5.2	9.9	10.4	5.6	1.4	1.9	6.1	11.1	22
23	11.4	6.0	1.8	1.6	5.4	10.3	10.9	5.9	1.5	2.0	6.4	11.6	23
24	11.9	6.2	1.9	1.7	5.7	10.8	11.4	6.2	1.6	2.1	6.7	12.2	24
					PORTLAND, MAINE.								
6	2.5	1.3	0.2	0.4	1.4	3.0	2.8	1.3	0.4	0.3	1.1	2.8	6
7	3.0	1.5	0.3	0.4	1.5	3.4	3.3	1.5	0.4	0.4	1.3	3.3	7
8	3.5	1.7	0.4	0.4	1.7	3.8	3.8	1.8	0.4	0.5	1.6	3.7	8
9	4.1	1.9	0.5	0.5	1.9	4.2	4.3	2.0	0.5	0.5	1.9	4.2	9
10	4.6	2.1	0.5	0.5	2.0	4.5	4.8	2.3	0.5	0.6	2.2	4.7	10
11	5.1	2.3	0.6	0.6	2.2	4.9	5.3	2.5	0.6	0.7	2.5	5.2	11
12	5.7	2.5	0.7	0.6	2.4	5.3	5.8	2.7	0.6	0.7	2.8	5.7	12
13	6.2	2.7	0.8	0.6	2.5	5.6	6.3	3.0	0.7	0.8	3.1	6.2	13
					BOSTON, MASSACHUSETTS.								
6	2.9	1.6	0.4	0.5	1.6	2.8	3.3	1.9	0.6	0.5	1.6	2.7	6
7	3.4	1.9	0.5	0.6	1.9	3.3	3.8	2.2	0.7	0.7	1.9	3.2	7
8	3.9	2.1	0.5	0.7	2.1	3.7	4.3	2.6	0.9	0.8	2.2	3.7	8
9	4.4	2.4	0.6	0.7	2.3	4.1	4.9	2.9	1.0	1.0	2.5	4.2	9
10	4.9	2.6	0.6	0.8	2.6	4.5	5.4	3.3	1.1	1.1	2.8	4.7	10
11	5.3	2.8	0.7	0.9	2.8	4.9	5.9	3.6	1.2	1.3	3.1	5.2	11
12	5.8	3.0	0.7	0.9	3.1	5.3	6.4	3.9	1.4	1.4	3.4	5.7	12
13	6.3	3.3	0.8	1.0	3.3	5.7	6.9	4.3	1.5	1.6	3.7	6.1	13
					NEWPORT, RHODE ISLAND.								
2	1.2	0.6	0.2	0.2	0.6	1.3	1.0	0.3	0.0	0.0	0.3	0.7	2
3	1.5	0.8	0.3	0.3	1.0	1.9	1.6	0.7	0.2	0.1	0.5	1.0	3
4	1.8	0.9	0.3	0.4	1.3	2.4	2.3	1.2	0.3	0.3	0.7	1.4	4
5	2.0	1.1	0.4	0.6	1.7	3.0	2.9	1.6	0.5	0.4	0.9	1.7	5
					NEW LONDON, CONNECTICUT.								
2	1.0	0.5	0.2	0.2	0.6	0.9	0.9	0.6	0.2	0.2	0.6	1.0	2
2	1.2	0.6	0.2	0.3	0.8	1.3	1.4	0.8	0.3	0.2	0.9	1.6	3
4	1.4	0.8	0.3	0.4	1.0	1.7	1.8	1.0	0.4	0.3	1.1	2.2	4
					WILLETS POINT, NEW YORK.								
5	2.9	0.8	0.0	0.0	1.0	2.5	2.0	0.6	0.1	0.1	1.2	3.0	5
6	3.2	1.0	0.1	0.1	1.1	2.8	2.3	0.8	0.2	0.2	1.5	3.5	6
7	3.5	1.1	0.1	0.1	1.2	3.2	2.6	1.0	0.3	0.3	1.8	4.0	7
8	3.8	1.2	0.1	0.2	1.3	3.5	2.8	1.1	0.4	0.3	2.1	4.5	8
9	4.1	1.3	0.2	0.3	1.4	3.9	3.0	1.3	0.5	0.4	2.4	5.0	9

For finding the height of the sea or tide at any intermediate hour between High and Low Water.

Range of Tide.	Subtract from height of High Water.						Add to height of Low Water.						Range of Tide.
	Hours before High Water.			Hours after High Water.			Hours before Low Water.			Hours after Low Water.			
	3	2	1	1	2	3	3	2	1	1	2	3	
Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
NEW YORK, NEW YORK.													
3	1.4	0.7	0.1	0.3	0.8	1.6	1.6	0.8	0.1	0.1	0.6	1.6	3
4	1.9	0.9	0.2	0.3	1.0	2.0	1.7	0.9	0.2	0.4	1.3	2.5	4
5	2.3	1.0	0.3	0.4	1.1	2.4	1.9	1.0	0.3	0.5	1.9	3.4	5
6	2.7	1.2	0.4	0.5	1.3	2.8	2.0	1.0	0.4	0.8	2.6	4.2	6
SANDY HOOK, NEW JERSEY.													
3	1.2	0.6	0.2	0.4	1.0	1.7	1.3	0.7	0.3	0.3	0.8	1.7	3
4	1.7	0.9	0.2	0.4	1.2	2.1	1.7	0.9	0.3	0.3	1.2	2.2	4
5	2.2	1.1	0.3	0.4	1.4	2.5	2.0	1.1	0.3	0.4	1.5	2.8	5
6	2.7	1.4	0.4	0.5	1.6	3.0	2.3	1.2	0.3	0.5	1.9	3.3	6
7	3.2	1.6	0.4	0.5	1.8	3.3	2.6	1.3	0.3	0.5	2.2	3.7	7
PHILADELPHIA, PENNSYLVANIA.													
5	2.7	1.5	0.5	0.7	1.8	2.8	1.8	1.1	0.5	1.9	3.5	4.3	5
6	2.9	1.5	0.5	0.7	1.9	2.8	2.0	1.2	0.6	2.1	3.8	4.9	6
7	3.1	1.6	0.5	0.7	1.9	2.9	2.2	1.3	0.6	2.3	4.0	5.6	7
OLD POINT COMFORT, VIRGINIA.													
2	0.9	0.4	0.1	0.1	0.5	1.2	1.1	0.5	0.0	0.2	0.6	1.3	2
3	1.2	0.6	0.2	0.2	0.7	1.6	1.4	0.6	0.1	0.2	0.8	1.6	3
WASHINGTON, DISTRICT OF COLUMBIA.													
2	1.2	0.5	0.1	0.1	0.5	1.1	1.0	0.5	0.1	0.1	0.8	1.5	2
3	1.4	0.7	0.2	0.2	0.7	1.3	1.2	0.6	0.2	0.3	1.0	1.8	3
4	1.6	0.9	0.3	0.3	0.9	1.5	1.4	0.7	0.3	0.3	1.2	2.1	4
BALTIMORE, MARYLAND.													
1	0.5	0.3	0.1	0.1	0.3	0.5	0.5	0.3	0.1	0.1	0.3	0.5	1
2	0.7	0.4	0.1	0.1	0.4	0.7	0.8	0.4	0.1	0.1	0.4	0.8	2
WILMINGTON, NORTH CAROLINA.													
1	0.8	0.4	0.1	0.1	0.3	0.6	0.3	0.2	0.1	0.2	0.5	0.9	1
2	1.2	0.6	0.2	0.2	0.6	1.0	0.6	0.3	0.1	0.5	1.0	1.7	2
3	1.6	0.8	0.2	0.3	0.9	1.5	0.9	0.5	0.2	0.8	1.6	2.6	3
4	2.1	1.1	0.3	0.4	1.2	2.0	1.2	0.7	0.3	1.2	2.3	3.5	4
CHARLESTON, SOUTH CAROLINA.													
3	1.4	0.6	0.2	0.2	0.6	1.4	1.6	0.7	0.3	0.2	1.0	1.9	3
4	1.8	0.8	0.2	0.2	0.9	1.8	2.1	1.1	0.3	0.3	1.3	2.3	4
5	2.1	1.0	0.2	0.3	1.2	2.3	2.6	1.4	0.4	0.4	1.5	2.7	5
6	2.4	1.1	0.3	0.4	1.5	2.7	3.1	1.8	0.5	0.5	1.7	3.2	6
7	2.7	1.3	0.4	0.5	1.8	3.2	3.6	2.1	0.6	0.6	1.9	3.6	7
SAVANNAH ENTRANCE, GEORGIA.													
4	2.3	1.2	0.4	0.3	1.4	2.2	2.5	1.5	0.4	0.3	1.0	2.2	4
5	2.5	1.3	0.4	0.4	1.4	2.4	2.7	1.5	0.4	0.4	1.2	2.5	5
6	2.9	1.4	0.4	0.4	1.5	2.9	3.0	1.6	0.5	0.4	1.5	3.0	6
7	3.2	1.6	0.4	0.5	1.7	3.3	3.3	1.7	0.6	0.5	1.9	3.6	7
8	3.6	1.7	0.4	0.5	1.8	3.8	3.6	1.8	0.6	0.6	2.2	4.1	8
9	4.0	1.8	0.5	0.6	1.9	4.2	3.9	2.0	0.7	0.7	2.6	4.6	9

For finding the height of the sea or tide at any intermediate hour between High and Low Water.

Range of Tide.	Subtract from height of High Water.						Add to height of Low Water.						Range of Tide.
	Hours before High Water.			Hours after High Water.			Hours before Low Water.			Hours after Low Water.			
	3	2	1	1	2	3	3	2	1	1	2	3	
Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
						FERNANDINA, FLORIDA.							
4	2.0	1.1	0.3	0.4	1.2	2.1	1.8	0.9	0.2	0.3	1.0	1.9	4
5	2.4	1.3	0.4	0.4	1.4	2.6	2.2	1.2	0.3	0.4	1.3	2.4	5
6	2.8	1.5	0.4	0.5	1.7	3.1	2.6	1.4	0.4	0.5	1.6	3.0	6
7	3.2	1.6	0.5	0.5	2.0	3.6	3.0	1.7	0.5	0.5	1.9	3.5	7
8	3.4	1.7	0.5	0.6	2.2	3.9	3.3	1.9	0.5	0.6	2.1	3.8	8
						KEY WEST, FLORIDA.							
1	0.4	0.1	0.1	0.1	0.2	0.5	0.5	0.2	0.1	0.1	0.1	0.4	1
2	0.7	0.2	0.1	0.1	0.4	0.9	0.9	0.3	0.1	0.1	0.2	0.9	2
3	1.0	0.3	0.1	0.2	0.6	1.3	1.2	0.4	0.2	0.2	0.4	1.4	3
						GALVESTON, TEXAS.							
½	0.4	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.4	½
1	0.5	0.3	0.1	0.1	0.3	0.4	0.4	0.2	0.1	0.1	0.3	0.4	1
1½	0.6	0.3	0.1	0.1	0.3	0.5	0.5	0.3	0.1	0.1	0.3	0.5	1½
2	0.6	0.4	0.1	0.1	0.3	0.5	0.5	0.3	0.1	0.1	0.3	0.6	2

EXAMPLE ILLUSTRATING THE USE OF TABLE 2.

1. Required, the height of tide at Boston, Massachusetts, at 7 a. m., on a day when the nearest predicted tides are as follows:

Low water.		High water.	
Time.	Height.	Time.	Height.
5h 07m.	—0.6 ft.	11h 22m.	11.2 ft.

The given time, 7 a. m., is about 2 hours *after* low water, and the range of tide in this case is 11.8 feet. Entering Table 2 for Boston, 2 hours after low water, for the range 11.8 feet (interpolating between 11 and 12 feet), we find 3.3 feet, which, added to −0.6 foot, the height of low water, gives 2.7 feet as the height required.

2. Required, the height of tide at New York, New York, at 6:15 a. m., on a day when the nearest predicted tides are as follows:

High water.		Low water.	
Time.	Height.	Time.	Height.
3h 29m.	4.4 ft.	9h 51m.	0.1 ft.

The given time, 6:15 a. m., is about 2¾ hours *after* high water, and the range of tide in this case is 4.3 feet. Entering Table 2 for New York, 2¾ hours after high water, for the range 4.3 feet (interpolating between 2 and 3 hours and between 4 and 5 feet), we find 1.8 feet, which, subtracted from 4.4 feet, the height of high water, gives 2.6 feet as the height required.

3. Required, the height of the tide at Charleston, South Carolina, at 3:30 p. m., on a day when the nearest predicted tides are as follows:

Low water.		High water.	
Time.	Height.	Time.	Height.
11h 28m.	0.0.	17h 52m.	5.0 ft.

The given time, 3:30 p. m., is about 2¼ hours *before* high water, and the range of tide is 5.0 feet. Entering Table 2 for Charleston, 2¼ hours before high water, for the range 5.0 feet (interpolating between 2 and 3 hours), we find 1.3 feet, which, subtracted from 5.0 feet, the height of high water, gives 3.7 feet as the height required.

For extending the application of Table 2 B to the height of the tide at any time.

Duration of rise or fall,—that is, the difference between the times of the tides on either side of the time for which the height is required.

Time before or after high or low water, —that is, the difference between the time for which the height is required and the nearest high or low water.	h. m. 2 30	h. m. 3 00	h. m. 3 30	h. m. 4 00	h. m. 4 30	h. m. 5 00	h. m. 5 30	h. m. 6 00	h. m. 7 00	h. m. 8 00	h. m. 9 00	h. m. 10 00	h. m. 11 00	h. m. 12 00	h. m. 13 00	h. m. 14 00	h. m. 15 00	h. m. 16 00	h. m. 17 00	h. m. Time before or after high or low water,—that is, the difference between the time for which the height is required and the nearest high or low water.
The tabular values are the top argument for entering Table 2 B.																				
0 05	0 12	0 10	0 09	0 08	0 07	0 06	0 06	0 05	0 04	0 04	0 03	0 03	0 03	0 03	0 02	0 02	0 02	0 02	0 02	0 05
0 10	0 25	0 21	0 18	0 16	0 14	0 12	0 11	0 10	0 09	0 08	0 07	0 06	0 06	0 05	0 05	0 04	0 04	0 04	0 04	0 10
0 15	0 37	0 31	0 27	0 23	0 21	0 19	0 17	0 16	0 13	0 12	0 10	0 09	0 08	0 08	0 07	0 07	0 06	0 06	0 05	0 15
0 20	0 50	0 41	0 35	0 31	0 28	0 25	0 22	0 21	0 18	0 16	0 14	0 12	0 11	0 10	0 10	0 09	0 08	0 08	0 07	0 20
0 25	1 02	0 52	0 44	0 39	0 35	0 31	0 28	0 26	0 22	0 19	0 17	0 16	0 14	0 13	0 12	0 11	0 10	0 10	0 09	0 25
0 30	1 15	1 02	0 53	0 47	0 41	0 37	0 34	0 31	0 27	0 23	0 21	0 19	0 17	0 16	0 14	0 13	0 12	0 12	0 11	0 30
0 35	1 27	1 12	1 02	0 54	0 48	0 43	0 39	0 36	0 31	0 27	0 24	0 22	0 20	0 18	0 17	0 16	0 14	0 14	0 13	0 35
0 40	1 39	1 23	1 11	1 02	0 55	0 50	0 45	0 41	0 35	0 31	0 28	0 25	0 23	0 21	0 19	0 18	0 17	0 16	0 15	0 40
0 45	1 52	1 33	1 20	1 10	1 02	0 56	0 51	0 47	0 40	0 35	0 31	0 28	0 25	0 23	0 21	0 20	0 19	0 17	0 16	0 45
0 50	2 04	1 44	1 29	1 18	1 09	1 02	0 56	0 52	0 44	0 39	0 35	0 31	0 28	0 26	0 24	0 22	0 21	0 19	0 18	0 50
0 55	2 17	1 54	1 38	1 25	1 16	1 08	1 02	0 57	0 49	0 43	0 38	0 34	0 31	0 28	0 26	0 24	0 23	0 21	0 20	0 55
1 00	2 29	2 04	1 46	1 33	1 23	1 15	1 07	1 02	0 53	0 47	0 41	0 37	0 34	0 31	0 29	0 27	0 25	0 23	0 22	1 00
1 05	2 41	2 15	1 55	1 41	1 30	1 21	1 13	1 07	0 58	0 50	0 45	0 40	0 37	0 34	0 31	0 29	0 27	0 25	0 24	1 05
1 10	2 54	2 25	2 04	1 49	1 37	1 27	1 19	1 12	1 02	0 54	0 48	0 43	0 40	0 36	0 33	0 31	0 29	0 27	0 26	1 10
1 15	3 06	2 35	2 13	1 56	1 44	1 33	1 24	1 18	1 07	0 58	0 52	0 47	0 42	0 39	0 36	0 33	0 31	0 29	0 27	1 15
1 20		2 46	2 22	2 04	1 50	1 39	1 30	1 23	1 11	1 02	0 55	0 50	0 45	0 41	0 38	0 35	0 33	0 31	0 29	1 20
1 25		2 56	2 31	2 12	1 57	1 46	1 35	1 28	1 15	1 06	0 59	0 53	0 48	0 44	0 41	0 38	0 35	0 33	0 31	1 25
1 30		3 06	2 40	2 20	2 04	1 52	1 41	1 33	1 20	1 10	1 02	0 56	0 51	0 47	0 43	0 40	0 37	0 35	0 33	1 30
1 35			2 49	2 27	2 11	1 58	1 47	1 38	1 24	1 14	1 06	0 59	0 54	0 49	0 45	0 42	0 39	0 37	0 35	1 35
1 40			2 57	2 35	2 18	2 04	1 52	1 44	1 29	1 18	1 09	1 02	0 56	0 52	0 48	0 44	0 41	0 39	0 37	1 40
1 45			3 06	2 43	2 25	2 10	1 58	1 49	1 33	1 22	1 12	1 05	0 59	0 54	0 50	0 47	0 43	0 41	0 38	1 45
1 50				2 51	2 32	2 17	2 04	1 54	1 38	1 25	1 16	1 08	1 02	0 57	0 53	0 49	0 46	0 43	0 40	1 50
1 55				2 59	2 39	2 23	2 09	1 59	1 42	1 29	1 19	1 11	1 05	1 00	0 55	0 51	0 48	0 45	0 42	1 55
2 00				3 06	2 46	2 29	2 15	2 04	1 46	1 33	1 23	1 15	1 08	1 02	0 57	0 53	0 50	0 47	0 44	2 00
2 05					2 53	2 35	2 20	2 09	1 51	1 37	1 26	1 18	1 11	1 05	1 00	0 55	0 52	0 49	0 46	2 05
2 10					3 00	2 41	2 26	2 15	1 55	1 41	1 30	1 21	1 13	1 07	1 02	0 58	0 54	0 50	0 47	2 10
2 15					3 06	2 48	2 32	2 20	2 00	1 45	1 33	1 24	1 16	1 10	1 04	1 00	0 56	0 52	0 49	2 15
2 20						2 54	2 37	2 25	2 04	1 49	1 37	1 27	1 19	1 12	1 07	1 02	0 58	0 54	0 51	2 20
2 25						3 00	2 43	2 30	2 09	1 53	1 40	1 30	1 22	1 15	1 09	1 04	1 00	0 56	0 53	2 25
2 30						3 06	2 48	2 35	2 13	1 56	1 44	1 33	1 25	1 18	1 12	1 07	1 02	0 58	0 55	2 30
2 35							2 54	2 40	2 18	2 00	1 47	1 36	1 28	1 20	1 14	1 09	1 04	1 00	0 57	2 35
2 40							3 00	2 46	2 22	2 04	1 50	1 39	1 30	1 23	1 16	1 11	1 06	1 02	0 58	2 40
2 45							3 06	2 51	2 26	2 08	1 54	1 42	1 33	1 25	1 19	1 13	1 08	1 04	1 00	2 45
2 50								2 56	2 31	2 12	1 57	1 46	1 36	1 28	1 21	1 15	1 10	1 06	1 02	2 50
2 55								3 01	2 35	2 16	2 01	1 49	1 39	1 31	1 24	1 18	1 12	1 08	1 04	2 55
3 00								3 06	2 40	2 20	2 04	1 52	1 42	1 33	1 26	1 20	1 15	1 10	1 06	3 00
3 10									2 49	2 27	2 11	1 58	1 47	1 38	1 31	1 24	1 19	1 14	1 09	3 10
3 20									2 57	2 35	2 18	2 04	1 53	1 44	1 36	1 29	1 23	1 18	1 13	3 20
3 30									3 06	2 43	2 25	2 10	1 59	1 49	1 40	1 33	1 27	1 22	1 17	3 30
3 40										2 51	2 32	2 17	2 04	1 54	1 45	1 38	1 31	1 25	1 20	3 40
3 50										2 59	2 39	2 23	2 10	1 59	1 50	1 42	1 35	1 29	1 24	3 50
4 00										3 06	2 46	2 29	2 15	2 04	1 55	1 46	1 39	1 33	1 28	4 00
4 10											2 53	2 35	2 21	2 09	1 59	1 51	1 44	1 37	1 31	4 10
4 20											2 59	2 41	2 27	2 15	2 04	1 55	1 48	1 41	1 35	4 20
4 30											3 06	2 48	2 32	2 20	2 09	2 00	1 52	1 45	1 39	4 30
4 40												2 54	2 38	2 25	2 14	2 04	1 56	1 49	1 42	4 40
4 50												3 00	2 44	2 30	2 19	2 09	2 00	1 53	1 46	4 50
5 00												3 06	2 49	2 35	2 23	2 13	2 04	1 56	1 50	5 00
5 10													2 55	2 40	2 28	2 18	2 08	2 00	1 53	5 10
5 20													3 01	2 46	2 33	2 22	2 12	2 04	1 57	5 20
5 30													3 06	2 51	2 38	2 26	2 17	2 08	2 01	5 30
5 40														2 56	2 42	2 31	2 21	2 12	2 04	5 40
5 50														3 01	2 47	2 35	2 25	2 16	2 08	5 50
6 00														3 06	2 52	2 40	2 29	2 20	2 12	6 00
6 10															2 57	2 44	2 33	2 24	2 15	6 10
6 20															3 02	2 49	2 37	2 27	2 19	6 20
6 30															3 06	2 53	2 41	2 31	2 22	6 30
6 40																2 57	2 46	2 35	2 26	6 40
6 50																3 02	2 50	2 39	2 30	6 50
7 00																3 06	2 54	2 43	2 33	7 00
7 10																	2 58	2 47	2 37	7 10
7 20																	3 02	2 51	2 41	7 20
7 30																	3 06	2 55	2 44	7 30
7 40																		2 59	2 48	7 40
7 50																		3 02	2 52	7 50
8 00																		3 06	2 55	8 00
8 10																			2 59	8 10
8 20																			3 03	8 20
8 30																			3 06	8 30

EXPLANATION OF TABLES 2 A AND 2 B.

If the range of tide is less than 10 feet, whenever the durations of rise and fall are not less than, say, 6 hours, nor greater than 6h. 25m., Table 2 B may be used directly. But, for greater ranges of tide, or when the durations of rise and fall exceed the above limits, it becomes desirable to use Table 2 A before entering Table 2 B. In order to illustrate the way of doing this, the following examples are given:

1. Required, the height of sea at 1h. 15m. p. m. for a station at which the nearest predicted tides are given as follows:

High water. Time.	Height.	Low water. Time.	Height.
10h. 27m	6.0 ft.	17h. 32m	—0.7 ft.

The duration of fall =17h. 32m.—10h. 27m.=7h. 05m.
The time after high water=13h. 15m.—10h. 27m.=2h. 48m.
The range of tide =6.0—(—0.7) =6.7 ft.
The height of high water =6.0 ft.
Table 2 A, arguments 7h. 05m., and 2h. 48m., gives 2h. 27m.
Table 2 B, arguments 2h. 27m., and 6.7 ft., gives 2.2 ft.
Required height of sea at 1h. 15m. p. m.=6.0—2.2=3.8 ft.

2. Required, the height of sea at 9h. 30m. a. m. for a station at which the tide is diurnal, the nearest predicted tides being as follows:

Low water. Time.	Height.	High water. Time.	Height.
4h. 28m	0.5 ft.	21h. 0.5m	2.9 ft.

The duration of rise =21h. 05m.—4h. 28m.=16h. 37m.
The time after low water= 9h. 30m.—4h. 28m.= 5h. 02m.
The range of tide =2.9—0.8 =2.1 ft.
The height of low water =0.8 ft.
Table 2 A, arguments 16h. 37m. and 5h. 02m., gives 1h. 53m.
Table 2 B, arguments 1h. 53m. and 2.1 ft., gives 0.4 ft.
Required height of the sea at 9h. 30m. a. m.=0.8+0.4=1.2 ft.

The time is reckoned from 0 to 24 hours, from midnight to midnight. In the first example 1h. 15m. p. m. becomes 13h. 15m. for finding the time after high water.

Height of the surface of the sea reckoned from high or low water.

Time before or after high or low water,—that is, the difference between the time for which the height is required and the nearest high or low water.

Subtract the tabular values from the height of high water when the difference of time is reckoned from high water. Add the tabular values to the height of low water when the difference of time is reckoned from low water.

Range of tide, or the difference between the heights of the high water and low water on either side of the time for which the height is required.	h. m. 0 10	h. m. 0 20	h. m. 0 30	h. m. 0 40	h. m. 0 50	h. m. 1 00	h. m. 1 10	h. m. 1 20	h. m. 1 30	h. m. 1 40	h. m. 1 50	h. m. 2 00	h. m. 2 10	h. m. 2 20	h. m. 2 30	h. m. 2 40	h. m. 2 50	h. m. 3 00	h. m. 3 10	Range of tide, or the difference between the heights of the high water and low water on either side of the time for which the height is required.
ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.5
1.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	1.0
1.5	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	1.5
2.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	0.9	1.0	2.0
2.5	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.1	1.2	1.3	2.5
3.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.3	1.4	1.5	3.0
3.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.8	3.5
4.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.7	1.9	2.1	4.0
4.5	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.1	1.2	1.4	1.6	1.8	1.9	2.1	2.3	4.5
5.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.7	0.8	1.0	1.2	1.4	1.5	1.7	1.9	2.2	2.4	2.6	5.0
5.5	0.0	0.0	0.1	0.2	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.3	1.5	1.7	1.9	2.1	2.4	2.6	2.8	5.5
6.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.9	2.1	2.3	2.6	2.8	3.1	6.0
6.5	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.1	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.1	3.4	6.5
7.0	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.9	2.2	2.4	2.7	3.0	3.3	3.6	7.0
7.5	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.6	2.9	3.2	3.6	3.9	7.5
8.0	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.5	3.8	4.1	8.0
8.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.2	1.4	1.7	2.0	2.3	2.6	3.0	3.3	3.7	4.0	4.4	8.5
9.0	0.0	0.1	0.1	0.2	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.8	3.1	3.5	3.9	4.3	4.6	9.0
9.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.0	1.3	1.6	1.9	2.2	2.6	2.9	3.3	3.7	4.1	4.5	4.9	9.5
10.0	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.4	1.7	2.0	2.3	2.7	3.1	3.5	3.9	4.3	4.7	5.2	10.0
10.5	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.5	2.9	3.3	3.7	4.1	4.5	5.0	5.4	10.5
11.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.5	1.8	2.2	2.6	3.0	3.4	3.8	4.3	4.7	5.2	5.7	11.0
11.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.3	1.6	1.9	2.3	2.7	3.1	3.6	4.0	4.5	5.0	5.4	5.9	11.5
12.0	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.3	1.7	2.0	2.4	2.8	3.3	3.7	4.2	4.7	5.2	5.7	6.2	12.0
12.5	0.0	0.1	0.2	0.3	0.5	0.8	1.1	1.4	1.7	2.1	2.5	2.9	3.4	3.9	4.4	4.9	5.4	5.9	6.4	12.5
13.0	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.2	2.6	3.1	3.5	4.0	4.5	5.1	5.6	6.2	6.7	13.0
13.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.5	1.8	2.3	2.7	3.2	3.7	4.2	4.7	5.3	5.8	6.4	7.0	13.5
14.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.3	2.8	3.3	3.8	4.3	4.9	5.5	6.0	6.6	7.2	14.0
14.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.9	3.4	3.9	4.5	5.1	5.7	6.3	6.9	7.5	14.5
15.0	0.0	0.1	0.2	0.4	0.7	0.9	1.3	1.6	2.1	2.5	3.0	3.5	4.1	4.6	5.2	5.8	6.5	7.1	7.7	15.0
15.5	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.6	3.1	3.6	4.2	4.8	5.4	6.0	6.7	7.3	8.0	15.5
16.0	0.0	0.1	0.3	0.5	0.7	1.0	1.4	1.8	2.2	2.7	3.2	3.8	4.3	5.0	5.6	6.2	6.9	7.6	8.2	16.0
16.5	0.0	0.1	0.3	0.5	0.7	1.0	1.4	1.8	2.3	2.8	3.3	3.9	4.5	5.1	5.8	6.4	7.1	7.8	8.5	16.5
17.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.9	2.3	2.8	3.4	4.0	4.6	5.3	5.9	6.6	7.3	8.0	8.8	17.0
17.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.5	4.1	4.8	5.4	6.1	6.8	7.6	8.3	9.0	17.5
18.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.2	4.9	5.6	6.3	7.0	7.8	8.5	9.3	18.0
18.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.0	2.5	3.1	3.7	4.3	5.0	5.7	6.5	7.2	8.0	8.8	9.5	18.5
19.0	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.2	3.8	4.5	5.2	5.9	6.6	7.4	8.2	9.0	9.8	19.0
19.5	0.0	0.1	0.3	0.5	0.9	1.2	1.7	2.1	2.7	3.3	3.9	4.6	5.3	6.0	6.8	7.6	8.4	9.2	10.1	19.5
20.0	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.7	3.3	4.0	4.7	5.4	6.2	7.0	7.8	8.6	9.5	10.3	20.0
20.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.1	4.8	5.6	6.3	7.2	8.0	8.8	9.7	10.6	20.5
21.0	0.0	0.1	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.9	5.7	6.5	7.3	8.2	9.1	9.9	10.8	21.0
21.5	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.4	2.9	3.6	4.3	5.0	5.8	6.7	7.5	8.4	9.3	10.2	11.1	21.5
22.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.7	4.4	5.2	6.0	6.8	7.7	8.6	9.5	10.4	11.3	22.0
22.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.5	5.3	6.1	7.0	7.9	8.8	9.7	10.7	11.6	22.5
23.0	0.0	0.2	0.4	0.6	1.0	1.4	2.0	2.5	3.2	3.9	4.6	5.4	6.2	7.1	8.0	9.0	9.9	10.9	11.9	23.0
23.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.7	5.5	6.4	7.3	8.2	9.2	10.1	11.1	12.1	23.5
24.0	0.0	0.2	0.4	0.7	1.1	1.5	2.0	2.6	3.3	4.0	4.8	5.6	6.5	7.4	8.4	9.4	10.4	11.4	12.4	24.0
24.5	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.7	3.4	4.1	4.9	5.8	6.7	7.6	8.6	9.6	10.6	11.6	12.6	24.5
25.0	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.2	5.0	5.9	6.8	7.7	8.7	9.7	10.8	11.8	12.9	25.0
25.5	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.3	5.1	6.0	6.9	7.9	8.9	9.9	11.0	12.1	13.1	25.5
26.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.9	3.6	4.4	5.2	6.1	7.1	8.0	9.1	10.1	11.2	12.3	13.4	26.0
26.5	0.0	0.2	0.4	0.7	1.2	1.7	2.2	2.9	3.6	4.4	5.3	6.2	7.2	8.2	9.3	10.3	11.4	12.5	13.7	26.5
27.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.4	6.3	7.3	8.4	9.4	10.5	11.6	12.8	13.9	27.0
27.5	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.8	4.6	5.5	6.5	7.5	8.5	9.6	10.7	11.9	13.0	14.2	27.5
28.0	0.0	0.2	0.4	0.8	1.2	1.8	2.4	3.1	3.8	4.7	5.6	6.6	7.6	8.7	9.8	10.9	12.1	13.3	14.4	28.0
28.5	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.7	6.7	7.7	8.8	10.0	11.1	12.3	13.5	14.7	28.5
29.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.2	4.0	4.9	5.8	6.8	7.9	9.0	10.1	11.3	12.5	13.7	15.0	29.0
29.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.9	6.9	8.0	9.1	10.3	11.5	12.7	14.0	15.2	29.5
30.0	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.3	4.1	5.0	6.0	7.0	8.1	9.3	10.5	11.7	12.9	14.2	15.5	30.0
30.5	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.2	5.1	6.1	7.2	8.3	9.4	10.7	11.9	13.2	14.4	15.7	30.5
31.0	0.1	0.2	0.5	0.9	1.4	1.9	2.6	3.4	4.3	5.2	6.2	7.3	8.4	9.6	10.8	12.1	13.4	14.7	16.0	31.0
31.5	0.1	0.2	0.5	0.9	1.4	2.0	2.7	3.5	4.3	5.3	6.3	7.4	8.6	9.8	11.0	12.3	13.6	14.9	16.2	31.5
32.0	0.1	0.2	0.5	0.9	1.4	2.0	2.7	3.5	4.4	5.4	6.4	7.5	8.7	9.9	11.2	12.5	13.8	15.1	16.5	32.0
32.5	0.1	0.2	0.5	0.9	1.4	2.0	2.8	3.6	4.5	5.4	6.5	7.6	8.8	10.1	11.4	12.7	14.0	15.4	16.8	32.5

The above table was computed for tides having periods of rise and fall each equal to one-quarter of a lunar day, or about 6h 12m. Table 2 A has been made to extend the application of this table to nearly all kinds of tides, except river tides.

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (ARCTIC REGIONS).										
	ARCTIC ARCHIPELAGO.	North.	West.				Local time.		Mean Low Water Springs.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Herschel Island	69 37	138 55	9 16	Madras	241	−3 20	−3 15	−0.6	−0.2	0.80
2	Bay of Mercy	74 10	118 20	7 53	Madras	241	−8 18	−7 23	−1.0	−0.2	0.67
3	Prince of Wales Strait	73 00	116 00	7 44	Madras	241	−8 38	−8 13	0.0	−0.2	1.02
4	Winter Bay	74 50	111 00	7 24	Madras	241	−6 53	−6 43	+0.6	0.0	1.29
5	Bridport Inlet, Dealy Island	74 55	108 47	7 15	Charleston	107	−5 58	−5 51	−1.6	+0.4	0.60
6	Northumberland Sound	76 52	97 00	6 28	Melbourne	225	−1 50	−1 57	−0.2	0.0	0.82
7	Refuge Cove, Wellington Channel	75 31	92 10	6 09	Charleston	107	+4 12	+4 12	−0.1	+0.6	0.86
8	Griffiths Island, Barrow Strait	74 35	95 30	6 22	Madras	241	−8 11	−8 06	+0.6	0.0	1.29
9	Beechey Island, Barrow Strait	74 43	92 00	6 08	Charleston	107	+4 18	+4 20	−0.2	+0.6	0.84
10	Port Leopold, Barrow Strait	73 50	90 25	6 02	Charleston	107	+3 59	+4 00	−0.2	+0.6	0.84
11	Port Kennedy, Bellot Strait	72 01	94 15	6 17	Charleston	107	+3 32	+3 32	−1.6	+0.4	0.60
12	Fury and Hecla Strait	69 25	81 30	5 26	Charleston	107	−0 50	−0 50	+2.0	+0.9	1.21
	HUDSON BAY.										
13	Marble Island	62 41	91 10	6 05	Brest	273	+0 22	+0 15	−6.7	−0.9	0.61
14	Port Churchill	58 46	94 10	6 17	Brest	273	+3 18	+3 10	−3.6	−0.4	0.78
15	York Factory	57 02	92 32	6 10	Brest	273	+7 27	+7 20	−6.7	−0.9	0.61
16	Port Laperrière, Digges Island	62 34	78 01	5 12	Brest	273	+5 12	+5 02	−9.4	−1.2	0.45
	HUDSON STRAIT.										
17	Port Boucherville, Nottingham I.	63 12	77 28	5 10	Brest	273	+5 18	+5 09	−5.2	−0.8	0.70
18	Stupart Bay	61 35	71 32	4 46	Liverpool	305	−2 56	−3 23	−2.2	−0.2	0.90
19	Ashe Inlet	62 33	70 35	4 42	Liverpool	305	−3 07	−3 38	+2.9	+0.7	1.10
20	Koksoak River, Ungava Bay	58 34	68 12	4 33	Liverpool	305	−2 29	−3 00	+9.2	+1.6	1.36
21	Port Burwell, Ungava Bay	60 25	64 46	4 19	Sheerness	289	−3 27	−3 10	+2.2	+0.6	1.12
	CUMBERLAND SOUND.										
22	Kingua Fiord	66 36	67 20	4 29	Sheerness	289	+5 23	+5 40	+3.3	+0.9	1.21
	GREENLAND.										
	West coast.										
23	Frederiksdal	60 01	44 34	2 58	Charleston	107	−4 50	−4 50	+3.0	+1.2	1.34
24	Nennortalik	60 08	45 16	3 01	Charleston	107	−2 12	−2 14	+2.4	+1.2	1.22
25	Julianshaab	60 42	45 54	3 04	Charleston	107	−2 49	−2 51	+1.0	+1.0	0.99
26	Arsuk	61 12	48 27	3 14	Charleston	107	−1 29	−1 31	+5.3	+1.6	1.71
27	Frederickshaab	62 00	49 37	3 18	Charleston	107	−1 32	−1 34	+2.7	+1.2	1.28
28	Godthaab	64 12	51 44	3 27	Savannah Entr.	111	−0 58	−1 05	+4.1	+1.4	1.41
29	Holsteinborg	67 00	53 42	3 35	Savannah Entr.	111	−1 14	−1 21	+2.0	+1.2	1.13
30	Whalefish Islands	68 50	53 15	3 33	Savannah Entr.	111	+0 28	+0 21	−0.2	+1.0	0.84
31	Godthavn, Disco Island	69 16	53 28	3 34	Savannah Entr.	111	+1 16	+1 09	−0.1	+0.9	0.86
32	Upernivik	72 50	56 05	3 44	Savannah Entr.	111	+3 14	+3 08	+0.1	+1.1	0.86
33	North Star Bay	76 30	68 50	4 35	Savannah Entr.	111	+3 22	+3 16	−0.3	+1.1	0.80
34	Wolstenholm Sound	76 33	68 56	4 36	Savannah Entr.	111	+3 24	+3 10	−0.2	+1.0	0.81
35	Port Foulke	78 18	73 00	4 52	Savannah Entr.	111	+3 39	+3 16	+1.8	+1.4	1.05
36	Rensselaer Bay	78 37	70 53	4 44	Savannah Entr.	111	+4 08	+3 54	+2.5	+1.5	1.16
37	Thank God Harbor, Polaris Bay	81 37	61 44	4 07	Charleston	107	+4 32	+4 26	−0.4	+0.8	0.76
	GRINNELL LAND.										
38	Cape Lawrence	81 21	69 15	4 37	Savannah Entr.	111	+3 33	+3 31	+5.0	+2.0	1.47
39	Fort Conger, Discovery Harbor	81 44	64 44	4 19	Charleston	107	+3 53	+3 48	0.0	+0.8	0.83
40	Cape Sheridan	82 25	61 30	4 06	Madras	241	+2 13	+2 13	−0.4	−0.2	0.84
	JAN MAYEN.										
41	Mary Muss Bay	71 00	8 28	0 34	Halifax	51	+3 27	+3 04	−1.4	0.0	0.70
	ICELAND.										
42	Reikiavik	64 12	21 50	1 27	Sheerness	289	+4 46	+5 05	−2.2	−0.2	0.85
	GREENLAND.										
	East coast.										
43	Cape Borgen	75 25	18 02	1 12	Halifax	51	+4 02	+3 42	−2.0	0.0	0.56
44	Cape Philip Broke	74 55	17 35	1 10	Halifax	51	+3 16	+2 52	−1.5	0.0	0.68
45	Pendulum Island	74 40	18 30	1 14	Nagasaki	173	+3 12	+3 13	−1.0	−0.2	0.86
46	Jackson Island	73 55	20 00	1 20	Nagasaki	173	+2 57	+2 58	0.0	0.0	1.00
47	Cape Hold-with-Hope (Broer Ruys)	73 28	20 30	1 22	Nagasaki	173	+2 42	+2 43	−0.4	0.0	0.95
48	Nubarbik	63 25	42 00	2 48	Madras	241	−2 05	−2 02	+1.5	+0.1	1.60
49	Cape Farewell	59 45	43 56	2 56	Savannah Entr.	111	−3 39	−3 45	−0.2	+1.0	0.82

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	h. m.	Feet.	Feet.	Feet.	East. °
1	4 50	11 05	5 17a	12 08b	1.8	2.3	1.2	2.9	1.6	0.9	.....	1.8	1.2	1.3	43.0
2	12 20	7 00	12 51a	8 11a	1.5	2.0	1.0	2.5	1.5	0.8	.....	1.7	1.0	1.2	90.0
3	12 00	6 10	12 25a	7 07a	2.3	3.0	1.5	3.5	1.8	1.0	.....	2.1	1.5	1.6	90.0
4	1 20	7 40	1 41b	8 30a	2.9	3.8	1.9	4.3	2.0	1.1	.....	2.3	1.9	1.9	120.0
5	1 38	8 00	1 59b	8 49a	3.1	4.0	2.0	4.5	2.1	1.1	.....	2.4	2.0	2.1	136.0 E.
6	12 20	6 10	12 51a	7 22a	1.4	1.8	0.9	2.4	1.4	0.8	.....	1.6	0.9	1.1	158.0 W.
7	11 50	5 40	12 08a	6 22a	4.4	5.7	2.8	6.1	2.5	1.4	.....	2.9	2.8	2.8	139.0 W.
8	0 05	6 20	0 26b	7 10a	2.9	3.8	1.9	4.3	2.0	1.1	.....	2.3	1.9	1.9	148.0 W.
															West.
9	11 56	5 48	12 14a	6 29a	4.3	5.6	2.8	6.0	2.5	1.4	13 51	2.8	2.8	2.8	137.0
10	11 38	5 29	11 50a	4 53a	4.3	5.5	2.9	5.8	2.6	1.0	13 00	2.7	2.8	2.5	127.0
11	11 10	5 00	11 24a	4 18a	3.1	4.0	2.1	4.4	2.2	0.8	.....	2.3	2.0	1.9	134.0
12	6 50	0 40	7 00a	0 10a	6.2	8.0	4.2	8.0	3.1	1.1	.....	3.3	4.0	3.6	81.5
															East.
13	4 00	10 15	3 59a	10 18a	8.9	12.0	5.1	8.3	0.4	0.2	.....	0.4	6.0	4.2	4.5
14	6 56	0 45	6 55a	0 47b	11.5	15.5	6.6	10.9	0.4	0.2	.....	0.4	7.8	4.5	10.0
15	11 05	4 55	11 04a	4 58b	8.9	12.0	5.1	8.3	0.4	0.2	.....	0.4	6.0	4.2	7.0
16	8 52	2 39	8 50a	2 43b	6.6	9.0	3.8	6.2	0.3	0.2	6 30	0.4	4.5	3.1	44.0 W.
															West.
17	8 58	2 46	8 52a	2 47b	10.2	13.5	6.1	9.8	0.3	0.9	3 42	1.0	6.8	5.0	48.0
18	7 50	1 37	7 45a	1 40b	19.2	25.1	12.3	13.7	0.8	1.4	3 44	1.6	12.6	9.5	49.0
19	8 04	1 52	8 01a	1 53b	28.5	31.2	14.4	22.3	0.6	1.4	3 12	1.5	15.6	11.3	52.0
20	8 42	2 30	8 39a	2 31b	28.9	38.5	17.6	28.6	0.6	1.5	.....	1.7	19.2	14.4	42.0
21	9 04	2 52	9 05a	2 46b	15.1	19.7	9.8	14.6	1.4	0.2	9 16	1.4	9.8	7.1	49.0
22	5 29	11 42	5 23a	11 49a	15.9	21.0	9.8	16.1	1.8	1.5	2 42	2.3	10.5	8.0	66.5
23	2 55	9 10	2 59a	8 50b	6.9	9.4	3.8	7.4	2.1	0.5	.....	2.1	4.7	3.3	46.5
24	5 33	11 46	5 38a	11 25b	6.3	8.6	3.4	6.7	2.0	0.5	6 26	2.0	4.3	3.0	47.0
25	4 56	11 09	5 01a	10 46b	5.1	7.0	2.8	5.5	1.8	0.4	.....	1.8	3.5	2.5	48.0
26	6 15	0 03	6 19a	− 0 15a	8.8	12.0	4.8	9.3	2.3	0.6	.....	2.4	6.0	4.3	49.5
27	6 12	0 00	6 16a	− 0 20a	6.6	9.0	3.6	7.1	2.0	0.5	.....	2.0	4.5	3.2	51.5
28	6 40	0 27	6 41a	0 13a	9.5	12.5	6.0	9.9	2.0	0.4	7 07	2.0	6.2	4.5	56.5
29	6 20	0 07	6 22a	− 0 09a	7.6	10.0	4.8	7.9	1.8	0.3	.....	1.8	5.0	3.6	62.0
30	8 05	1 52	8 07a	1 34a	5.7	7.5	3.6	6.0	1.6	0.3	.....	1.6	3.8	2.6	64.0
31	8 50	2 37	8 52a	2 19a	5.8	7.6	3.7	6.0	1.6	0.3	.....	1.6	3.8	2.6	64.5
32	10 50	4 38	10 56a	4 31a	5.8	8.0	3.0	6.0	0.7	0.6	.....	0.8	4.0	2.8	75.0
33	10 58	4 46	11 05a	4 37a	5.4	7.5	2.9	5.6	0.6	0.6	.....	0.9	3.8	2.6	97.0
34	11 00	4 40	11 07a	4 32a	5.5	7.6	2.9	5.6	0.6	0.6	.....	0.9	3.8	2.6	97.5
35	11 14	4 45	11 20a	4 38a	7.1	9.9	3.7	7.4	0.7	0.7	.....	1.0	5.0	3.4	107.0
36	11 43	5 23	11 49a	5 16a	7.8	10.8	4.1	8.0	0.8	0.7	.....	1.0	5.4	3.9	105.0
37	12 14	5 58	12 22a	5 49a	3.9	5.4	2.0	3.8	0.5	0.5	.....	0.7	2.7	2.0	95.0
38	11 09	5 01	11 14a	4 55a	9.9	13.8	5.1	10.1	0.9	0.8	.....	1.2	6.9	4.8	105.0
39	11 34	5 20	11 42a	5 11a	4.3	5.9	2.2	4.1	0.6	0.5	14 24	0.8	3.0	2.1	99.0
40	10 35	4 20	10 46a	4 06a	1.9	2.6	1.0	1.8	0.4	0.3	.....	0.5	1.3	0.9	95.0
41	11 21	5 06	11 26b	5 04b	3.0	3.8	2.2	3.6	0.2	0.6	.....	0.7	1.9	1.8	28.0
42	5 10	11 25	5 13a	11 24a	11.5	14.5	8.4	12.6	0.4	1.2	.....	1.3	7.2	6.3	35.5
43	11 55	5 43	12 01a	5 41a	2.4	3.1	1.8	3.0	0.2	0.6	.....	0.6	1.6	1.5	38.5
44	11 10	4 58	11 15a	4 56a	2.9	3.7	2.1	3.5	0.2	0.6	.....	0.6	1.8	1.8	38.0
45	11 06	4 53	11 08a	4 52a	5.3	6.7	3.9	6.2	0.3	0.8	.....	0.8	3.4	3.2	37.5
46	10 50	4 38	10 53a	4 37a	6.2	7.9	4.5	7.2	0.3	0.9	.....	0.9	4.0	3.7	39.0
47	10 35	4 23	10 38a	4 22a	5.9	7.5	4.3	6.9	0.3	0.9	.....	0.9	3.8	3.6	39.0
48	6 20	0 08	6 26a	− 0 19a	3.6	4.9	2.0	3.9	1.5	0.4	.....	1.5	2.4	1.7	49.5
49	4 00	10 13	4 05a	9 50b	5.5	7.5	3.0	5.9	1.8	0.5	.....	1.9	3.8	2.6	46.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST).										
	LABRADOR.	North.	West.				Local time.		Mean Low Water Springs.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Eclipse Harbor	59 50	64 10	4 17	Charleston	107	+0 18	+0 16	−0.8	+0.6	0.72
2	Nachvak Bay	59 05	63 20	4 13	Charleston	107	−0 42	−0 44	−0.6	+0.7	0.74
3	Nain	56 34	61 44	4 07	Sandy Hook	83	−0 28	−0 33	+0.9	+0.8	1.06
4	Hopedale Harbor	55 25	60 20	4 01	Sandy Hook	83	−1 58	−2 03	+1.2	+0.8	1.13
5	Indian Harbor	54 30	57 30	3 50	Sandy Hook	83	−1 18	−1 23	+1.4	+0.8	1.15
6	Independent Harbor	53 51	56 55	3 48	Sandy Hook	83	−0 48	−0 53	+0.4	+0.7	0.95
7	Indian Tickle	53 34	56 00	3 44	Sandy Hook	83	−1 01	−1 06	+0.6	+0.7	1.00
8	Seal Islands	53 14	55 42	3 43	Sandy Hook	83	−0 58	−1 03	+0.2	+0.7	0.91
9	Venison Tickle	52 58	55 46	3 43	Sandy Hook	83	−0 51	−0 56	+0.2	+0.7	0.91
10	Occasional Harbor	52 40	55 47	3 43	Sandy Hook	83	−0 50	−0 55	−0.4	+0.6	0.82
11	Fishing Ship Harbor	52 36	55 45	3 43	Sandy Hook	83	−0 44	−0 49	+0.2	+0.7	0.91
12	Spear Harbor	52 26	55 38	3 43	St. Johns	47	+0 29	+0 28	+1.0	+0.2	1.35
13	St. Lewis Sound	52 19	55 44	3 43	St. Johns	47	−0 13	−0 14	+0.3	+0.1	1.08
14	Chateau Bay, Strait of Belle Isle	52 00	55 53	3 44	Halifax	51	−0 35	−1 12	−2.0	0.0	0.56
15	Red Bay, Strait of Belle Isle	51 45	56 26	3 46	Halifax	51	+0 57	+0 10	−2.0	0.0	0.56
16	Forteau Bay, Strait of Belle Isle	51 27	56 23	3 46	Halifax	51	+1 57	+1 09	−1.2	0.0	0.73
	NEWFOUNDLAND.										
	East coast.						Time meridian, 60° W.				
17	Pistolet Bay	51 32	55 45	3 43	St. Johns	47	+0 29	+0 28	0.0	0.0	1.00
18	Hare Bay	51 17	55 55	3 44	Sandy Hook	83	+0 44	+0 39	+1.6	+0.8	1.15
19	Canada Bay	50 45	56 08	3 45	Sandy Hook	83	−1 07	−1 12	0.0	+0.6	0.87
20	Cat Head, White Bay	50 08	56 41	3 47	St. Johns	47	−0 05	−0 06	+1.2	+0.2	1.40
21	Fortune Harbor, Notre Dame Bay	49 32	55 15	3 41	St. Johns	47	+0 02	+0 01	+0.8	0.0	1.27
22	Fogo Harbor	49 44	54 16	3 37	St. Johns	47	−0 01	−0 02	+1.0	+0.2	1.35
23	Barrow Harbor, Bonavista Bay	48 40	53 36	3 34	St. Johns	47	−1 06	−1 07	+1.0	+0.2	1.31
24	Hearts Content, Trinity Bay	47 53	53 28	3 34	St. Johns	47	+0 14	+0 13	+0.7	+0.1	1.23
25	Grace Harbor, Conception Bay	47 42	53 13	3 33	St. Johns	47	+0 05	+0 04	+1.0	+0.2	1.35
26	ST. JOHNS	47 34	52 41	3 31	St. Johns	47	0 00	0 00	0.0	0.0	1.00
	South coast.										
27	Cape Race	46 39	53 07	3 32	Sandy Hook	83	−1 07	−1 12	+1.0	+0.8	1.06
28	Trepassey Harbor	46 43	53 33	3 34	Sandy Hook	83	−1 05	−1 10	+1.2	+0.8	1.08
29	St. Mary Harbor, St. Mary Bay	46 55	53 35	3 34	Sandy Hook	83	−0 25	−0 30	+2.0	+1.0	1.24
30	Cape St. Mary, Placentia Bay	46 50	54 12	3 37	Sandy Hook	83	+0 28	+0 23	+1.7	+0.9	1.17
31	Woody Island, Placentia Bay	47 47	54 13	3 37	Sandy Hook	83	+0 08	+0 03	+1.6	+0.8	1.15
32	Burin Harbor, Placentia Bay	47 02	55 11	3 41	Sandy Hook	83	+0 48	+0 43	+1.0	+0.8	1.06
33	Great Laun	46 56	55 33	3 42	Sandy Hook	83	+0 19	+0 14	+1.6	+0.8	1.15
34	St. Pierre Island	46 47	56 09	3 45	Sandy Hook	83	+0 40	+0 35	+1.2	+0.8	1.08
35	Brunet Islands	47 16	55 55	3 44	Sandy Hook	83	+1 09	+1 04	+1.0	+0.8	1.06
36	Grand Bank Harbor, Fortune Bay	47 06	55 44	3 43	Sandy Hook	83	+0 53	+0 48	+0.8	+0.8	1.02
37	Grand le Pierre H., Fortune Bay	47 09	54 46	3 39	Sandy Hook	83	+1 10	+1 05	+1.4	+0.8	1.13
38	Breton Harbor, Fortune Bay	47 30	55 47	3 43	Sandy Hook	83	+0 57	+0 52	+1.7	+0.9	1.17
39	Hermitage Cove	47 32	55 55	3 44	Sandy Hook	83	+0 51	+0 46	+1.6	+0.8	1.15
40	Rencontre Bay	47 37	56 37	3 46	Sandy Hook	83	+1 03	+0 58	+1.0	+0.8	1.04
41	La Hune Bay	47 33	56 50	3 47	Sandy Hook	83	+0 49	+0 44	+1.0	+0.8	1.06
42	Burgeo Islands	47 36	57 37	3 50	Sandy Hook	83	+0 45	+0 40	+0.8	+0.8	1.02
43	La Poile Bay	47 40	58 23	3 54	Sandy Hook	83	+1 16	+1 11	+0.7	+0.7	1.00
44	Port Basque	47 35	59 07	3 56	Sandy Hook	83	+1 20	+1 15	+0.3	+0.7	0.91
	West coast.										
	Gulf of St. Lawrence.										
45	Codroy Road	47 53	59 24	3 58	Halifax	51	+0 59	+0 29	−0.9	+0.1	0.77
46	St. George Harbor	48 28	58 21	3 53	Halifax	51	+1 09	+0 37	−1.2	0.0	0.70
47	Frenchman Cove, Bay of Islands	49 00	58 09	3 53	Halifax	51	+1 22	+0 46	−0.8	0.0	0.82
48	Bonne Bay	49 34	57 57	3 52	Halifax	51	+1 33	+0 57	−0.6	0.0	0.84
49	Cowhead Harbor	49 55	57 47	3 51	Halifax	51	+1 42	+1 03	−0.4	0.0	0.89
50	Hawke Harbor	50 37	57 12	3 49	Halifax	51	+1 55	+1 12	−0.5	+0.1	0.87
51	Port au Choix	50 44	57 21	3 49	Halifax	51	+1 50	+1 08	+1.0	+0.2	1.17
52	Good Bay	50 48	57 12	3 49	Halifax	51	+1 56	+1 13	+0.8	+0.3	1.15
53	Castors Harbor, St. John Bay	50 54	56 57	3 48	Halifax	51	+2 00	+1 15	−1.2	0.0	0.75
54	St. Genevieve Bay	51 09	56 48	3 47	Halifax	51	+2 08	+1 21	−0.2	0.0	0.94
	QUEBEC.										
	Gulf of St. Lawrence.										
55	Belles Amour Bay	51 27	57 26	3 50	Halifax	51	+0 47	−0 01	−1.6	0.0	0.66
56	Mistanoque Harbor	51 16	58 12	3 53	Halifax	51	+2 20	+1 25	−0.5	+0.1	0.87
57	Antrobus Island	50 38	59 17	3 57	Halifax	51	+2 24	+1 21	−1.2	0.0	0.73
58	Wapitagun Harbor	50 12	60 01	4 00	Halifax	51	+2 28	+0 26	−1.2	0.0	0.73

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	8 00	1 48	8 06a	1 21b	3.7	5.0	2.0	4.0	1.5	0.4	.....	1.5	2.5	1.7	47.5
2	7 00	0 48	7 06a	0 21b	3.8	5.2	2.1	4.1	1.5	0.4	.....	1.6	2.6	1.8	46.0
3	7 00	0 48	6 57a	1 07b	4.9	6.5	3.0	5.4	1.3	0.3	.....	1.4	3.2	2.3	40.5
4	5 30	11 43	5 27a	12 01a	5.2	6.9	3.2	5.7	1.4	0.3	.....	1.4	3.4	2.6	39.0
5	6 10	12 28	6 07a	12 40a	5.3	7.0	3.2	5.8	1.5	0.3	.....	1.4	3.5	2.7	38.5
6	6 40	0 28	6 36a	0 48b	4.4	5.8	2.7	4.9	1.3	0.3	.....	1.3	2.9	2.2	37.5
7	6 27	0 15	6 24a	0 33b	4.6	6.0	2.8	5.1	1.3	0.3	.....	1.3	3.0	2.3	37.0
8	6 30	0 18	6 26a	0 38b	4.2	5.5	2.6	4.7	1.3	0.3	.....	1.3	2.8	2.1	37.0
9	6 37	0 25	6 33a	0 45b	4.2	5.5	2.6	4.7	1.3	0.3	.....	1.3	2.8	2.1	36.5
10	6 38	0 26	6 34a	0 47b	3.8	5.0	2.3	4.3	1.2	0.3	.....	1.2	2.5	1.9	36.0
11	6 44	0 32	6 40a	0 52b	4.2	5.5	2.6	4.7	1.3	0.3	.....	1.3	2.8	2.1	36.0
12	7 12	1 00	7 08a	1 21b	3.4	4.5	2.0	3.8	1.1	0.2	.....	1.1	2.2	1.7	36.0
13	6 30	0 18	6 26a	0 42b	2.7	3.5	1.6	3.1	1.0	0.2	.....	1.0	1.8	1.4	35.5
14	7 30	1 05	6 57a	1 09b	2.4	3.1	1.6	2.9	0.2	1.2	.....	1.2	1.6	1.7	35.0
15	9 00	2 25	8 27a	2 29b	2.4	3.1	1.6	2.9	0.2	1.2	.....	1.2	1.6	1.7	34.5
16	10 00	3 24	9 30a	3 28b	3.1	4.0	2.0	3.7	0.2	1.4	.....	1.4	2.0	2.2	34.0
17	7 29	1 17	7 24a	1 43b	2.5	3.3	1.5	2.9	1.0	0.2	.....	1.0	1.6	1.3	34.0
18	8 28	2 16	8 25a	2 33b	5.3	7.0	3.2	5.8	1.4	0.3	.....	1.4	3.5	2.7	34.0
19	6 36	0 24	6 32a	0 44b	4.0	5.2	2.4	4.4	1.2	0.3	.....	1.2	2.6	2.0	32.5
20	6 50	0 38	6 46a	1 00b	3.5	4.6	2.1	3.9	1.1	0.2	.....	1.2	2.3	1.8	31.5
21	7 04	0 52	7 00a	1 14b	3.2	4.0	1.9	3.6	1.1	0.2	.....	1.1	2.0	1.6	31.0
22	7 05	0 53	7 01a	1 14b	3.4	4.5	2.1	3.8	1.1	0.2	.....	1.1	2.2	1.7	32.0
23	6 03	12 16	5 59a	12 37a	3.3	4.4	2.0	3.7	1.1	0.2	.....	1.1	2.2	1.7	30.5
24	7 23	1 11	7 19a	1 34b	3.1	4.1	1.9	3.4	1.1	0.2	.....	1.1	2.0	1.6	29.5
25	7 15	1 03	7 11a	1 24b	3.4	4.5	2.1	3.8	1.1	0.2	.....	1.1	2.2	1.7	29.0
26	7 12	1 01	7 07a	1 26b	2.5	3.3	1.5	2.9	1.0	0.2	6 22	1.0	1.6	1.3	29.0
27	6 50	0 38	6 47a	0 57b	4.9	6.5	3.0	5.4	1.3	0.3	.....	1.4	3.2	2.5	28.0
28	6 50	0 38	6 47a	0 56b	5.0	6.6	3.1	5.5	1.4	0.3	.....	1.4	3.3	2.5	28.0
29	7 30	1 18	7 27a	1 34b	5.7	7.5	3.5	6.3	1.5	0.3	.....	1.4	3.8	2.9	28.0
30	8 29	2 08	8 17a	2 25b	5.4	7.2	3.3	5.9	1.4	0.3	.....	1.4	3.6	2.7	27.5
31	8 00	1 48	7 57a	2 05b	5.3	7.0	3.2	5.8	1.4	0.3	.....	1.4	3.5	2.7	28.5
32	8 35	2 23	8 32a	2 42b	4.9	6.5	3.0	5.4	1.3	0.3	.....	1.4	3.2	2.5	27.5
33	8 05	1 53	8 02a	2 11b	5.3	7.0	3.2	5.8	1.4	0.3	.....	1.4	3.5	2.7	27.5
34	8 23	2 11	8 20a	2 29b	5.0	6.6	3.1	5.5	1.4	0.3	.....	1.4	3.3	2.5	27.0
35	8 53	2 41	8 50a	3 00b	4.9	6.5	3.0	5.4	1.3	0.3	.....	1.4	3.2	2.5	27.5
36	8 38	2 26	8 35a	2 44b	4.7	6.2	2.9	5.2	1.3	0.3	.....	1.3	3.1	2.4	27.0
37	9 00	2 48	8 57a	3 06b	5.2	6.9	3.2	5.7	1.4	0.3	.....	1.4	3.4	2.6	28.0
38	8 42	2 30	8 39a	2 47b	5.4	7.1	3.3	5.9	1.4	0.3	.....	1.4	3.6	2.7	28.0
39	8 35	2 23	8 32a	2 40b	5.3	7.0	3.2	5.8	1.4	0.3	.....	1.4	3.5	2.7	28.0
40	8 45	2 33	8 41a	2 53b	4.8	6.3	2.9	5.3	1.3	0.3	.....	1.4	3.2	2.4	27.5
41	8 30	2 18	8 27a	2 37b	4.9	6.4	3.0	5.4	1.3	0.3	.....	1.4	3.2	2.5	27.5
42	8 22	2 10	8 19a	2 28b	4.7	6.2	2.9	5.2	1.3	0.3	.....	1.3	3.1	2.4	27.0
43	8 50	2 38	8 47a	2 56b	4.6	6.0	2.8	5.1	1.3	0.3	.....	1.3	3.0	2.3	27.0
44	8 52	2 40	8 48a	3 00b	4.2	5.5	2.6	4.7	1.3	0.3	.....	1.3	2.8	2.1	26.5
45	6 50	2 32	8 22a	2 36b	3.3	4.3	2.1	3.9	0.2	1.4	.....	1.4	2.2	2.2	27.0
46	9 05	2 45	8 37c	2 49b	3.0	3.9	1.9	3.5	0.2	1.3	.....	1.3	2.0	2.0	28.0
47	9 20	2 58	8 54a	3 01b	3.5	4.5	2.3	4.1	0.2	1.4	.....	1.4	2.2	2.3	29.0
48	9 30	3 06	9 04a	3 09b	3.6	4.6	2.3	4.1	0.2	1.5	.....	1.5	2.3	2.4	30.0
49	9 40	3 13	9 14a	3 16b	3.8	4.9	2.5	4.4	0.2	1.5	.....	1.5	2.4	2.5	30.5
50	9 55	3 24	9 28a	3 28b	3.7	4.8	2.4	4.3	0.3	1.5	.....	1.5	2.4	2.4	32.0
51	9 50	3 20	9 28a	3 23b	5.0	6.5	3.2	5.7	0.3	1.7	.....	1.7	3.2	3.2	32.0
52	9 56	3 25	9 33a	3 28b	4.9	6.4	3.2	5.6	0.3	1.7	.....	1.7	3.2	3.2	32.0
53	10 00	3 27	9 31a	3 31b	3.2	4.1	2.1	3.8	0.3	1.4	.....	1.4	2.0	2.2	32.5
54	10 10	3 35	9 45a	3 38b	4.0	5.2	2.6	4.6	0.3	1.5	.....	1.5	2.6	2.6	33.0
55	8 45	2 10	8 15a	2 14b	2.8	3.6	1.8	3.3	0.6	1.3	.....	1.3	1.8	1.9	33.5
56	10 15	3 33	9 48a	3 37b	3.7	4.8	2.4	4.3	0.7	1.0	.....	1.5	2.4	2.4	33.0
57	10 15	3 25	9 45a	3 29b	3.1	4.0	2.0	3.7	1.0	1.0	.....	1.3	2.0	2.1	31.0
58	10 15	2 26	9 45a	2 30b	3.1	4.0	2.0	3.7	1.0	0.8	.....	1.3	2.0	2.1	30.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	QUEBEC—continued.										
	Gulf of St. Lawrence—Continued.	*North.*	*West.*				*Time meridian, 60° W.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Kegashka Bay	50 11	61 16	4 05	Halifax	51	+ 2 48	+ 1 08	− 1.2	0.0	0.73
2	Little Natashquan Harbor	50 12	61 50	4 07	Halifax	51	+ 3 05	+ 1 47	− 1.2	0.0	0.73
3	Appeetetat Bay	50 19	63 00	4 12	Halifax	51	+ 3 20	+ 2 03	− 1.2	0.0	0.73
4	Mingan Harbor	50 17	64 02	4 16	Halifax	51	+ 5 55	+ 4 38	− 0.5	+0.1	0.87
	Anticosti Island.										
5	West Point Light	49 52	64 32	4 18	Halifax	51	+ 6 41	+ 5 18	− 0.5	+0.1	0.87
6	Bear Bay	49 31	62 26	4 10	Halifax	51	+ 4 58	+ 3 35	− 1.2	0.0	0.73
7	East Point	49 08	61 39	4 07	Halifax	51	+ 3 25	+ 2 02	− 1.6	0.0	0.66
8	Southwest Point Light	49 24	63 36	4 14	Halifax	51	+ 6 04	+ 5 29	+ 0.7	+0.1	1.15
	St. Lawrence River.										
9	Cape Rosier Light	48 52	64 12	4 17	New York	79	+ 6 07	+ 4 55	+ 0.8	+0.4	1.11
10	Cape Magdalen Light	49 16	65 19	4 21	New York	79	+ 6 19	+ 5 09	+ 1.6	+0.4	1.27
11	Martin River Light	49 13	66 09	4 25	New York	79	+ 6 27	+ 5 30	+ 2.4	+0.4	1.45
12	Carousel Light	50 06	66 23	4 26	New York	79	+ 6 34	+ 5 29	+ 3.2	+0.4	1.61
13	Cawee Island	49 50	67 07	4 28	New York	79	+ 6 38	+ 5 36	+ 4.0	+0.6	1.80
14	Cape Chatte Light	49 06	66 45	4 27	New York	79	+ 6 46	+ 6 20	+ 7.5	+1.1	2.45
							Time meridian, 75° W.				
15	Point de Monts Light	49 20	67 22	4 29	New York	79	+ 5 46	+ 5 22	+ 6.6	+1.0	2.26
16	Matane Light	48 52	67 33	4 30	New York	79	+ 5 49	+ 5 25	+ 6.0	+0.6	2.20
17	Little Metis	48 41	68 01	4 32	New York	79	+ 5 51	+ 5 27	+ 7.5	+1.1	2.45
18	Manicouagan Shoal Light	49 06	68 12	4 33	New York	79	+ 5 54	+ 5 06	+ 6.9	+0.7	2.41
19	Father Point Light	48 31	68 28	4 34	New York	79	+ 5 54	+ 5 30	+ 8.4	+1.2	2.64
20	Bic Island	48 24	68 53	4 36	New York	79	+ 5 59	+ 5 38	+ 8.8	+0.8	2.80
21	Tadousac, Saguenay River	48 09	69 43	4 39	New York	79	+ 6 26	+ 6 06	+11.6	+1.0	3.40
22	Chicoutimi, Saguenay River	48 34	71 05	4 44	New York	79	+ 6 43	+ 7 42	+ 6.9	+0.7	2.41
23	Brandy Pots Light	47 52	69 41	4 39	New York	79	+ 6 40	+ 6 19	+11.6	+1.0	3.40
24	Murray Bay	47 39	70 08	4 41	New York	79	+ 7 22	+ 7 10	+11.2	+1.4	3.21
25	Orignaux Point Light	47 30	70 02	4 40	New York	79	+ 7 29	+ 7 18	+12.1	+1.1	3.50
26	Coudres Island	47 21	70 26	4 42	New York	79	+ 7 58	+ 7 50	+11.6	+1.6	3.30
27	L'Islet	47 08	70 22	4 41	New York	79	+ 8 59	+ 8 55	+12.6	+1.0	3.61
28	Beaujeu Channel	47 05	70 29	4 42	New York	79	+ 9 19	+ 9 16	+12.5	+1.5	3.49
29	Grosse Isle	47 02	70 40	4 43	New York	79	+ 9 17	+ 9 41	+13.5	+1.1	3.82
30	Berthier	46 56	70 43	4 43	New York	79	+ 9 34	+10 00	+11.6	+1.6	3.30
31	St. Laurent Light, Orleans Island	46 52	71 03	4 44	New York	79	+ 9 58	+10 36	+12.2	+1.0	3.52
32	Quebec Dry Dock	46 49	71 12	4 45	New York	79	+10 14	+11 00	+ 9.6	+0.8	2.98
33	St. Nicholas	46 42	71 24	4 46	New York	79	+10 49	+11 35	+11.2	+1.4	3.21
34	St. Augustin	46 45	71 28	4 46	New York	79	+11 00	+11 52	+10.6	+1.4	3.11
35	Ste. Croix	46 37	71 45	4 47	New York	79	+11 45	+13 00	+ 9.4	+1.2	2.83
36	Point Platon	46 40	71 51	4 47	New York	79	+11 55	+13 11	+ 8.8	+1.2	2.74
37	Grondine Light	46 36	72 04	4 48	New York	79	−12 16	−10 31	+ 3.7	+0.5	1.73
38	Cape Roche Light	46 33	72 10	4 49	New York	79	−11 52	−10 00	+ 1.2	+0.4	1.21
39	Batiscan Light	46 31	72 15	4 49	New York	79	−10 55	− 8 59	− 1.4	+0.2	0.64
40	Champlain Light	46 26	72 21	4 49	New York	79	−10 24	− 8 17	− 2.1	+0.1	0.51
41	Three Rivers	46 20	72 33	4 50	New York	79	− 9 51	− 7 35	− 3.2	0.0	0.25
	Gulf of St. Lawrence.						*Time meridian, 60° W.*				
42	O'Hara Point Light, Gaspé Bay	48 50	64 32	4 18	Halifax	51	+ 7 05	+ 5 48	− 0.2	0.0	0.96
43	Cape Despair Light	48 26	64 18	4 17	Halifax	51	+ 6 24	+ 5 17	− 0.8	0.0	0.82
44	Macquereau Point, Chaleur Bay	48 12	64 46	4 19	Halifax	51	+ 6 51	+ 5 52	− 0.6	+0.2	0.84
45	Carlisle, Chaleur Bay	48 01	65 20	4 21	Halifax	51	+ 7 18	+ 6 28	− 0.5	+0.1	0.87
46	Carleton Point, Chaleur Bay	48 05	66 07	4 24	Halifax	51	+ 7 30	+ 6 47	+ 2.6	+0.2	1.54
	NEW BRUNSWICK.										
	Gulf of St. Lawrence.										
47	Campbellton, Chaleur Bay	48 01	66 40	4 27	Halifax	51	+ 8 33	+ 8 01	+ 4.4	+0.4	1.92
48	Dalhousie, Chaleur Bay	48 04	66 21	4 25	Halifax	51	+ 7 41	+ 6 57	+ 3.4	+0.4	1.73
49	Bathurst, Chaleur Bay	47 39	65 37	4 22	Halifax	51	+ 7 29	+ 7 17	+ 0.9	+0.3	1.15
50	Caraquette, Chaleur Bay	47 50	64 54	4 20	Halifax	51	+ 7 12	+ 7 00	0.0	+0.2	0.98
51	Miscou Harbor, Chaleur Bay	47 55	64 29	4 18	Halifax	51	+ 6 55	+ 6 43	− 1.2	0.0	0.73
52	North Tracadio Gully Light	47 30	64 52	4 19	Halifax	51	+ 8 11	+ 8 14	− 2.6	−0.2	0.45
53	Lower Neguac, Miramichi Bay	47 16	65 03	4 20	Halifax	51	+ 9 48	+ 9 54	− 2.6	−0.2	0.42
54	Richibucto Head Light	46 40	64 42	4 19	Halifax	51	− 1 39	− 1 31	− 2.2	−0.2	0.51
55	Shediac Island Light	46 15	64 32	4 18	Halifax	51	0 00	+ 0 08	− 2.2	−0.2	0.51
56	Jourimain Islet Light	46 10	63 48	4 15	Halifax	51	+ 1 32	+ 1 40	− 1.0	0.0	0.75
57	Cape Tormentine	46 07	63 46	4 15	Halifax	51	+ 2 37	+ 2 16	− 1.1	−0.1	0.77

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc.)	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	10 30	3 03	10 00a	3 07b	3.1	4.0	2.0	3.7	1.2	0.5	.....	1.3	2.0	1.7	29.0
2	10 45	3 40	10 15a	3 44b	3.1	4.0	2.0	3.7	1.2	0.5	.....	1.3	2.0	1.7	29.0
3	10 55	3 51	10 25a	3 55b	3.1	4.0	2.0	3.7	1.2	0.5	.....	1.3	2.0	1.7	28.5
4	1 01	6 22	0 34b	6 26b	3.7	4.8	2.4	4.3	1.4	0.5	.....	1.5	2.4	2.0	27.5
5	1 45	7 00	1 18b	7 04b	3.7	4.8	2.4	4.3	1.1	0.5	.....	1.5	2.4	2.0	27.0
6	0 10	5 25	12 05a	5 29b	3.1	4.0	2.0	3.7	1.1	0.5	.....	1.3	2.0	1.7	27.5
7	11 05	3 55	10 35a	3 59b	2.8	3.6	1.8	3.3	1.1	0.5	.....	1.3	1.8	1.6	27.5
8	1 12	7 15	0 46b	7 18b	4.9	6.0	3.7	5.4	1.2	0.6	.....	1.5	3.0	2.8	27.0
9	1 25	6 40	1 21b	7 03b	4.9	5.5	4.1	5.3	1.6	0.8	.....	1.8	2.8	2.4	25.5
10	1 33	6 50	1 27b	7 15b	5.6	6.4	4.7	6.0	1.8	0.8	.....	2.0	3.2	2.8	25.5
11	1 37	5 57	1 32b	7 20b	6.4	7.3	5.4	6.8	1.9	0.9	.....	2.1	3.6	3.2	25.0
12	1 43	7 05	1 38b	7 27b	7.1	8.1	6.0	7.6	2.0	0.9	.....	2.2	4.0	3.5	26.0
13	1 45	7 10	1 40b	7 31b	7.9	9.0	6.6	8.4	2.0	1.0	.....	2.3	4.5	3.9	25.0
14	1 55	7 56	1 55b	8 13b	10.8	13.0	8.3	12.0	2.0	1.2	.....	2.5	6.5	6.0	24.0
15	1 53	7 56	1 49b	8 13b	9.9	12.0	7.7	11.2	2.6	1.1	.....	2.6	6.0	5.5	24.0
16	1 55	7 58	1 51b	8 16b	9.7	11.0	8.1	10.3	2.6	1.1	.....	2.6	5.5	4.8	23.0
17	1 55	7 58	1 51b	8 15b	10.8	13.0	8.3	12.2	2.7	1.1	.....	2.7	6.5	6.0	22.5
18	1 57	7 36	1 53b	7 53b	10.6	12.0	8.9	11.2	2.8	1.1	.....	2.7	6.0	5.2	23.0
19	1 56	7 59	1 52b	8 15b	11.6	14.0	9.0	13.0	2.8	1.1	.....	2.7	7.0	6.4	22.0
20	1 59	8 05	1 55b	8 21b	12.3	14.0	10.3	12.9	3.0	1.2	.....	2.9	7.0	6.1	22.0
21	2 23	8 30	2 20b	8 45b	15.0	17.0	12.6	15.7	3.3	1.3	.....	3.2	8.5	7.4	21.0
22	2 34	10 00	2 30b	10 17b	10.6	12.0	8.9	11.2	2.8	1.1	.....	2.7	6.0	5.1	19.5
23	2 37	8 43	2 34b	8 58b	15.0	17.0	12.6	15.7	3.3	1.3	.....	3.2	8.5	7.4	20.5
24	3 17	9 32	3 14b	9 47b	14.1	17.0	10.9	15.8	3.3	1.3	.....	3.2	8.5	7.7	19.5
25	3 25	9 41	3 22b	9 56b	15.4	17.5	12.9	16.1	3.3	1.4	.....	3.3	8.8	7.6	19.5
26	3 51	10 10	3 48b	10 25b	14.5	17.5	11.2	16.2	3.3	1.4	.....	3.3	8.8	8.0	19.5
27	4 54	11 17	4 51b	11 31b	15.9	18.0	13.3	16.6	3.4	1.4	.....	3.3	9.0	7.9	19.0
28	5 12	11 36	5 09b	11 50b	15.4	18.5	11.9	17.1	3.4	1.4	.....	3.3	9.2	8.4	19.0
29	5 09	12 00	5 06b	12 14b	16.8	19.0	14.1	17.5	3.5	1.4	.....	3.4	9.5	8.3	18.0
30	5 26	12 19	5 23b	0 08a	14.5	17.5	11.2	16.2	3.3	1.4	.....	3.4	8.8	8.0	18.0
31	5 49	0 29	5 46b	0 44a	15.5	17.6	13.0	16.2	3.4	1.4	.....	3.3	8.8	7.7	18.0
32	6 04	0 52	6 02b	1 06a	13.1	14.9	10.9	13.6	3.0	1.3	17 43	3.0	7.4	6.4	17.5
33	6 38	1 26	6 35b	1 42a	14.1	17.0	10.9	15.7	3.2	1.3	.....	2.8	8.5	7.7	17.5
34	6 49	1 43	6 45b	2 00a	13.7	16.5	10.6	15.3	3.1	1.2	.....	2.8	8.2	7.4	17.5
35	7 33	2 50	7 29b	3 08a	12.5	15.0	9.6	14.0	3.0	1.2	.....	2.6	7.5	6.8	17.0
36	7 43	3 01	7 38b	3 21a	12.1	14.5	9.3	13.6	3.0	1.1	.....	2.4	7.2	6.6	17.0
37	8 21	4 08	8 16b	4 29a	7.6	8.6	6.4	8.1	2.4	1.0	.....	2.3	4.3	3.7	16.5
38	8 44	4 38	8 38b	5 03a	5.3	6.0	4.4	5.7	2.0	0.8	.....	1.9	3.0	2.6	16.5
39	9 41	5 39	9 35b	6 06a	2.8	3.2	2.3	3.1	1.4	0.6	.....	1.4	1.6	1.4	16.5
40	10 12	6 21	10 03b	7 01a	2.2	2.5	1.8	2.5	1.3	0.5	.....	1.2	1.2	1.1	16.5
41	10 44	7 02	10 32b	7 55a	1.1	1.3	0.9	1.3	0.9	0.4	.....	0.9	0.6	0.5	16.0
42	2 09	7 30	1 40b	7 34b	4.1	5.0	3.1	4.7	1.4	0.3	.....	1.4	2.5	2.2	25.5
43	1 29	7 00	1 03b	7 03b	3.5	4.5	2.3	4.1	1.4	0.3	.....	1.4	2.2	2.0	25.0
44	1 54	7 33	1 26b	7 37b	3.6	4.7	2.3	4.2	1.5	0.3	.....	1.5	2.4	2.0	24.0
45	2 19	8 07	1 52b	8 11b	3.7	4.8	2.4	4.3	1.5	0.3	.....	1.5	2.4	2.1	24.5
46	2 28	8 23	2 05b	8 26b	6.6	8.0	4.9	7.3	1.7	0.3	.....	1.7	4.0	3.4	23.5
47	3 28	9 34	3 09b	9 37b	8.3	10.0	6.1	9.1	2.0	0.3	.....	2.0	5.0	4.3	22.5
48	2 38	8 32	2 18b	8 35b	7.4	9.0	5.5	8.2	1.9	0.3	.....	1.9	4.5	3.8	23.0
49	2 29	8 55	2 06b	8 58b	4.9	6.3	3.2	5.6	1.7	0.3	.....	1.7	3.2	2.6	23.0
50	2 14	8 40	1 49b	8 43b	4.2	5.4	2.7	4.8	1.6	0.3	.....	1.6	2.7	2.2	23.0
51	1 59	8 25	1 29b	8 29b	3.1	4.0	2.0	3.7	1.3	0.3	.....	1.3	2.0	1.7	24.0
52	3 14	9 55	2 37b	10 00b	1.9	2.4	1.2	2.2	1.1	0.4	.....	1.1	1.2	1.1	23.5
53	4 50	11 34	4 13b	11 39b	1.8	2.3	1.2	2.2	0.9	0.5	.....	1.0	1.2	1.1	23.5
54	5 50	0 10	5 17b	0 14a	2.2	2.8	1.4	2.7	0.9	0.6	.....	1.1	1.4	1.3	22.5
55	7 30	1 50	6 57b	1 54a	2.2	2.8	1.4	2.7	0.9	0.9	.....	1.1	1.4	1.4	22.0
56	9 05	3 25	8 36b	3 29a	3.2	4.2	2.1	3.8	0.6	1.0	.....	1.4	2.1	2.0	22.5
57	10 09	4 01	9 41b	4 05a	3.3	4.0	2.5	4.0	0.6	1.4	.....	1.4	2.0	2.1	22.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (East Coast)—Continued.										
	PRINCE EDWARD ISLAND.										
	Gulf of St. Lawrence—Continued.	North.	West.				Time meridian, 60° W.		Mean Low Water Springs.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	North Point Light	47 04	63 59	4 16	Halifax	51	+ 9 13	+ 9 16	−2.6	−0.2	0.45
2	Alberton	46 48	64 03	4 16	Halifax	51	+10 36	+10 39	−2.6	−0.2	0.42
3	Richmond Harbor	46 34	63 45	4 15	Halifax	51	+10 43	+10 46	−3.2	−0.2	0.33
4	Grand Rustico Light	46 28	63 17	4 13	Halifax	51	+10 38	+10 41	−3.4	−0.2	0.28
5	St. Peters Harbor Light	46 26	62 45	4 11	Halifax	51	+10 59	+11 02	−3.6	−0.4	0.23
6	East Point Light	46 27	61 58	4 08	Halifax	51	+ 0 37	+ 0 28	−3.5	−0.3	0.26
7	Souris	46 20	62 17	4 09	Halifax	51	+ 0 57	+ 0 18	−1.9	−0.1	0.59
8	Georgetown Harbor Light	46 10	62 31	4 10	Halifax	51	+ 1 22	+ 0 50	−2.1	0.0	0.54
9	Cape Bear Light	46 01	62 27	4 10	Halifax	51	+ 1 17	+ 0 33	−1.0	0.0	0.75
10	Charlottetown	46 12	63 07	4 12	Halifax	51	+ 2 46	+ 2 21	+0.9	+0.3	1.15
11	Hillsboro River Head	46 23	62 49	4 11	Halifax	51	+ 3 45	+ 2 47	+3.2	+0.6	1.62
12	Crapaud Light	46 13	63 29	4 14	Halifax	51	+ 2 06	+ 2 14	+0.9	+0.3	1.15
13	Summerside, Bedeque Bay	46 24	63 47	4 15	Halifax	51	+ 3 04	+ 2 48	+0.2	+0.2	1.01
14	Minimegash Light	46 53	64 14	4 17	Halifax	51	+ 9 54	+10 02	−2.6	−0.2	0.45
	ISLANDS.										
	Gulf of St. Lawrence.										
15	St. Paul Island, Northeast Light	47 14	60 08	4 01	Halifax	51	+ 0 44	+ 0 13	−2.3	−0.1	0.49
16	Magdalen Islands, Grindstone I'd	47 23	61 57	4 08	Halifax	51	+ 1 05	+ 0 33	−2.6	−0.2	0.42
	NOVA SCOTIA.										
	Gulf of St. Lawrence.										
17	Pugwash Harbor Light	45 52	63 40	4 15	Halifax	51	+ 2 50	+ 2 18	0.0	+0.2	0.98
18	Tatamagouche Harbor	45 45	63 10	4 13	Halifax	51	+ 2 18	+ 1 46	+0.6	+0.2	1.08
19	Pictou Harbor Light	45 41	62 40	4 11	Halifax	51	+ 2 14	+ 1 33	−1.2	0.0	0.70
20	Cape George Light	45 53	61 55	4 08	Halifax	51	+ 1 29	+ 0 57	−2.2	−0.2	0.51
21	Pomquet Harbor	45 39	61 55	4 08	Halifax	51	+ 1 45	+ 1 18	−2.0	0.0	0.56
	CAPE BRETON ISLAND.										
	Gulf of St. Lawrence.										
22	Gut of Canso, North Entrance	45 42	61 32	4 06	Halifax	51	+ 1 44	+ 1 16	−2.0	0.0	0.56
23	Port Hood Light	46 00	61 32	4 06	Halifax	51	+ 1 12	+ 0 42	−1.6	0.0	0.63
24	Chetican Island Light	46 38	61 00	4 04	Halifax	51	+ 1 06	+ 0 36	−2.3	0.0	0.49
25	Cape North	47 02	60 23	4 02	Halifax	51	+ 0 49	+ 0 19	−2.0	0.0	0.56
	Outer coast.										
26	Neal Harbor	46 49	60 20	4 01	Halifax	51	+ 0 25	+ 0 25	−0.7	−0.1	0.87
27	St. Anne Harbor Light	46 17	60 32	4 02	Halifax	51	+ 0 39	+ 0 39	+0.7	+0.1	1.15
28	Sydney Harbor Light	46 13	60 13	4 01	Halifax	51	+ 0 20	+ 0 20	−0.2	0.0	0.96
29	Menadou Bay	45 59	59 48	3 59	Halifax	51	+ 0 10	+ 0 10	+0.3	+0.1	1.05
30	Louisburg Harbor Light	45 55	59 57	4 00	Halifax	51	− 0 03	− 0 03	−0.2	0.0	0.96
31	St. Peter Bay Light	45 41	60 50	4 03	Halifax	51	− 0 30	− 0 30	+0.7	+0.1	1.15
32	Arichat Harbor Light	45 30	61 03	4 04	Halifax	51	+ 0 11	+ 0 11	−0.2	0.0	0.96
	NOVA SCOTIA.										
	Outer coast.										
33	Gut of Canso, South Entrance	45 31	61 15	4 05	Halifax	51	+ 0 22	+ 0 22	+0.4	0.0	1.08
34	Guysboro Light	45 23	61 29	4 06	Halifax	51	+ 0 23	+ 0 23	+1.0	+0.2	1.22
35	Canso Harbor Light	45 21	60 59	4 04	Halifax	51	− 0 01	− 0 01	+1.1	+0.1	1.24
36	Whitehaven	45 12	61 08	4 05	Halifax	51	+ 0 02	+ 0 02	+1.2	+0.2	1.27
37	Country Harbor, Island Harbor	45 10	61 41	4 07	Halifax	51	− 0 16	− 0 16	+1.1	+0.1	1.24
38	Liscomb Harbor Light	44 59	61 58	4 08	Halifax	51	+ 0 05	+ 0 05	+1.1	+0.1	1.24
39	Sheet Harbor	44 53	62 31	4 10	Halifax	51	+ 0 13	+ 0 13	+1.2	0.0	1.25
40	Ship Harbor	44 46	62 48	4 11	Halifax	51	+ 0 02	+ 0 02	+1.1	+0.1	1.24
41	Jedore Harbor	44 42	63 01	4 12	Halifax	51	− 0 06	− 0 06	+1.0	+0.2	1.22
42	Halifax	44 40	63 35	4 14	Halifax	51	0 00	0 00	0.0	0.0	1.00
43	Sable Island, north side	43 57	59 55	4 00	Halifax	51	− 0 33	− 0 33	−1.1	−0.1	0.77
44	Sable Island, south side	43 55	60 00	4 00	Halifax	51	− 1 33	− 1 33	−1.0	−0.2	0.80
45	Blind Bay	44 28	63 50	4 15	Halifax	51	− 0 03	− 0 03	+2.1	+0.3	1.43
46	St. Margaret Bay	44 35	63 58	4 16	Halifax	51	0 00	0 00	+1.8	+0.2	1.36
47	Mahone Bay	44 28	64 17	4 17	Halifax	51	− 0 01	− 0 01	+2.1	+0.3	1.43
48	Lunenburg	44 23	64 18	4 17	Halifax	51	+ 0 08	+ 0 08	+1.6	+0.3	1.33
49	Port Medway	44 08	64 35	4 18	Halifax	51	+ 0 01	+ 0 01	+2.4	+0.4	1.50
50	Liverpool Bay	44 02	64 42	4 19	Halifax	51	+ 0 06	+ 0 06	+2.5	+0.3	1.52
51	Port Mouton	43 56	64 49	4 19	Halifax	51	+ 0 20	+ 0 20	+2.1	+0.3	1.43
52	Port Ebert	43 48	64 56	4 20	Halifax	51	+ 0 18	+ 0 18	+2.4	+0.2	1.50

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	4 19	11 00	3 42b	11 05b	1.9	2.4	1.2	2.2	0.9	0.4	.....	1.1	1.2	1.2	23.0
2	5 42	12 23	5 05b	0 03a	1.9	2.4	1.2	2.2	0.8	0.4	.....	1.1	1.2	1.2	23.0
3	5 50	0 06	5 08b	0 12a	1.4	1.8	0.9	1.8	0.6	0.5	.....	0.9	0.9	1.0	22.5
4	5 47	0 03	5 03b	0 09a	1.2	1.6	0.8	1.5	0.6	0.6	.....	0.8	0.8	0.9	23.0
5	6 10	0 26	5 17b	0 32a	1.0	1.3	0.6	1.3	0.6	0.6	.....	0.8	0.6	0.8	23.5
6	8 16	2 20	7 28b	2 26a	1.1	1.4	0.7	1.4	0.2	0.8	.....	0.8	0.7	1.0	24.0
7	8 35	2 09	8 03b	2 13a	2.5	3.2	1.6	3.0	0.2	1.2	.....	1.2	1.6	1.7	24.0
8	8 59	2 40	8 25b	2 45a	2.3	3.0	1.5	2.8	0.3	1.2	.....	1.2	1.5	1.6	24.0
9	8 54	2 23	8 25b	2 27a	3.2	4.2	2.1	3.8	0.4	1.4	.....	1.4	2.1	2.2	23.0
10	10 21	4 09	9 58b	4 12a	4.9	6.4	3.2	5.5	0.8	1.4	.....	1.7	3.2	3.0	23.0
11	11 21	4 36	11 02b	4 39a	6.9	9.0	4.5	7.7	1.4	1.6	.....	2.0	4.5	4.0	23.0
12	9 39	4 00	9 16b	4 03a	4.9	6.4	3.2	5.6	1.4	1.4	.....	1.7	3.2	2.9	23.0
13	10 36	4 33	10 12b	1 36a	4.3	5.6	2.8	4.9	1.4	0.5	.....	1.6	2.8	2.3	22.5
14	5 00	11 45	4 23b	11 50b	1.9	2.4	1.2	2.2	1.0	0.5	.....	1.1	1.2	1.1	23.0
15	8 30	2 12	7 55b	2 16a	2.1	2.7	1.4	2.6	0.1	1.1	15 04	1.1	1.4	1.5	26.0
16	8 45	2 25	8 08b	2 30a	1.8	2.3	1.2	2.2	0.1	1.0	.....	1.0	1.2	1.3	25.0
17	10 22	4 03	9 57b	4 06a	4.2	5.4	2.7	4.8	0.5	1.5	.....	1.6	2.7	2.8	22.0
18	9 52	3 33	9 29b	3 36a	4.6	6.0	3.0	5.2	0.3	1.5	.....	1.6	3.0	3.0	22.0
19	9 50	3 22	9 22b	3 26a	3.0	3.9	2.0	3.5	0.3	1.3	.....	1.3	2.0	2.0	22.5
20	9 08	2 49	8 35b	2 53a	2.2	2.8	1.4	2.7	0.2	1.1	.....	1.1	1.4	1.6	23.0
21	9 25	3 09	8 52b	3 13a	2.4	3.1	1.6	2.9	0.2	1.2	.....	1.2	1.6	1.7	23.0
22	9 26	3 10	8 53b	3 14a	2.4	3.1	1.6	2.9	0.2	1.2	.....	1.2	1.6	1.7	23.0
23	8 53	2 36	8 21b	2 40a	2.7	3.5	1.8	3.2	0.2	1.3	.....	1.3	1.8	1.9	23.5
24	8 50	2 32	8 16b	2 37a	2.1	2.7	1.4	2.6	0.2	1.1	.....	1.1	1.4	1.5	24.5
25	8 35	2 17	8 02b	2 21a	2.4	3.1	1.6	2.9	0.2	1.2	.....	1.2	1.6	1.7	25.5
26	8 11	2 24	7 46a	2 29b	3.7	4.5	2.8	4.1	0.5	1.0	.....	1.1	2.2	2.8	26.0
27	8 25	2 37	8 14a	2 43b	4.9	6.0	3.7	5.3	0.5	1.0	.....	1.1	3.0	2.8	26.5
28	8 06	2 19	7 58a	2 24b	4.1	5.0	3.1	4.4	0.5	0.9	.....	1.0	2.5	2.3	24.5
29	8 00	2 11	7 46a	2 18b	4.5	5.5	3.4	4.8	0.5	0.9	.....	1.0	2.8	2.5	24.5
30	7 45	1 57	7 31a	2 04b	4.1	5.0	3.1	4.4	0.5	0.9	.....	1.0	2.5	2.3	24.5
31	7 15	1 27	7 02a	1 33b	4.9	6.0	3.7	5.3	0.5	1.0	.....	1.1	3.0	2.8	24.0
32	7 55	2 07	7 41a	2 14b	4.1	5.0	3.1	4.4	0.5	0.9	.....	1.0	2.5	2.3	23.0
33	8 05	2 17	7 54a	2 23b	4.6	5.6	3.4	5.0	0.5	0.9	.....	1.0	2.8	2.6	23.5
34	8 05	2 17	7 57a	2 23b	5.2	6.4	3.9	5.6	0.5	1.0	.....	1.1	3.2	3.0	23.0
35	7 43	1 55	7 31a	2 01b	5.3	6.5	4.0	5.7	0.5	1.0	.....	1.1	3.2	3.0	23.0
36	7 45	1 57	7 33a	2 03b	5.4	6.6	4.1	5.8	0.5	1.0	.....	1.1	3.3	3.0	23.0
37	7 25	1 37	7 13a	1 43b	5.3	6.5	4.0	5.7	0.5	1.0	.....	1.1	3.2	3.0	22.5
38	7 45	1 57	7 33a	2 03b	5.3	6.5	4.0	5.7	0.5	1.0	.....	1.1	3.2	3.0	22.0
39	7 50	2 03	7 38a	2 09b	5.4	6.5	4.0	5.8	0.5	1.0	.....	1.1	3.2	3.0	21.5
40	7 39	1 51	7 27a	1 57b	5.3	6.5	4.0	5.7	0.5	1.0	.....	1.1	3.2	3.0	21.5
41	7 30	1 42	7 18a	1 48b	5.2	6.4	4.0	5.7	0.5	1.0	.....	1.1	3.2	3.0	21.0
42	7 33	1 46	7 21a	1 52b	4.3	5.2	3.2	4.7	0.5	1.0	3 20	1.0	2.6	2.5	21.0
43	7 15	1 27	6 59a	1 35b	3.3	4.0	2.5	3.6	0.4	0.8	.....	0.9	2.0	1.9	22.0
44	6 15	0 27	5 59a	0 35b	3.4	4.1	2.6	3.7	0.4	0.8	.....	0.9	2.0	1.9	22.0
45	7 30	1 42	7 19a	1 48b	6.1	7.5	4.6	6.5	0.6	1.1	.....	1.2	3.8	3.4	20.0
46	7 32	1 44	7 20a	1 50b	5.8	7.1	4.4	6.2	0.6	1.1	.....	1.2	3.6	3.2	20.0
47	7 30	1 42	7 19a	1 48b	6.1	7.5	4.6	6.5	0.6	1.1	.....	1.2	3.8	3.4	20.0
48	7 39	1 51	7 27a	1 57b	5.7	7.0	4.3	6.1	0.6	1.1	.....	1.2	3.5	3.2	20.0
49	7 31	1 43	7 21a	1 48b	6.4	7.9	4.8	6.8	0.6	1.1	.....	1.2	4.0	3.6	19.5
50	7 35	1 47	7 24a	1 52b	6.5	8.0	4.9	6.9	0.6	1.1	.....	1.2	4.0	3.6	19.0
51	7 49	2 01	7 38a	2 07b	6.1	7.5	4.6	6.5	0.6	1.1	.....	1.2	3.8	3.4	19.0
52	7 46	1 58	7 36a	2 04b	6.4	7.8	4.8	6.8	0.6	1.1	.....	1.2	3.9	3.5	19.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	NOVA SCOTIA—continued.										
	Outer coast—Continued.	*North.*	*West.*				*Time Meridian, 60° W.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Rugged Island Harbor	43 42	65 06	4 20	Halifax	51	+0 10	+0 10	+ 2.1	+0.3	1.43
2	Shelburne	43 45	65 19	4 21	Halifax	51	+0 22	+0 22	+ 1.6	+0.2	1.33
3	Negro Harbor	43 34	65 25	4 22	Halifax	51	+0 23	+0 23	+ 1.6	+0.2	1.83
4	Barrington	43 33	65 34	4 22	Halifax	51	+1 22	+1 22	+ 5.2	+0.6	2.09
5	Cape Sable Light	43 23	65 37	4 22	Halifax	51	+1 17	+1 17	+ 5.3	+0.5	2.12
	Bay of Fundy.										
6	Seal Island Light	43 24	66 01	4 24	Eastport	55	−0 38	−0 46	− 6.2	+0.8	0.62
7	Pubnico	43 38	65 47	4 23	Eastport	55	−1 03	−1 06	− 7.0	+0.8	0.58
8	Argyle	43 42	65 50	4 23	Eastport	55	−1 01	−0 59	− 6.2	+0.8	0.62
9	Yarmouth	43 50	66 08	4 25	Eastport	55	−0 11	−0 26	− 3.2	+1.0	0.77
10	Grand Passage, St. Mary Bay	44 15	66 20	4 25	Eastport	55	+0 25	+0 22	+ 1.3	+1.3	1.00
11	Petite Passage, St. Mary Bay	44 23	66 12	4 25	Eastport	55	+0 22	+0 23	+ 2.4	+1.4	1.06
12	Weymouth, St. Mary Bay	44 27	66 01	4 24	Eastport	55	+0 30	+0 29	+ 4.4	+1.4	1.16
13	Digby Pier	44 41	65 46	4 23	Eastport	55	+0 38	+0 34	+ 7.6	+1.8	1.32
14	Annapolis	44 45	65 30	4 22	Eastport	55	+1 02	+1 01	+ 8.8	+1.8	1.38
15	Port George	45 00	65 09	4 21	Eastport	55	+0 49	+1 02	+11.7	+2.1	1.53
16	Isle Haute Light	45 15	65 01	4 20	Eastport	55	+0 52	+1 16	+12.8	+2.0	1.59
17	Black Rock Light	45 10	64 46	4 19	Eastport	55	+0 59	+1 28	+15.6	+2.2	1.73
18	Spencer Anchorage	45 20	64 42	4 19	Eastport	55	+1 13	+1 48	+18.3	+2.5	1.87
19	Parrsboro, Minas Bansin	45 23	64 19	4 17	Eastport	55	+1 49	+2 21	+22.2	+2.6	2.07
20	Horton Bluff, Minas Basin	45 07	64 13	4 17	Eastport	55	+2 01	+2 40	+26.9	+2.9	2.31
21	Noel Bay, Minas Basin	45 19	63 45	4 15	Eastport	55	+2 10	+2 49	+29.1	+3.1	2.43
22	Spicer Cove	45 25	64 54	4 20	Eastport	55	+1 08	+1 47	+16.4	+2.4	1.77
	NEW BRUNSWICK—continued.										
	Bay of Fundy.										
23	Sackville	45 53	64 22	4 17	Eastport	55	+1 26	+2 30	+24.2	+2.8	2.18
24	Grindstone Island Light	45 43	64 27	4 18	Eastport	55	+1 17	+2 11	+20.2	+2.6	1.97
25	Folly Point	45 52	64 34	4 18	Eastport	55	+1 20	+2 10	+24.0	+2.8	2.17
26	Moncton Railway	46 06	64 47	4 19	Eastport	55	+1 42	+2 41	+25.9	+2.9	2.26
27	Quaco	45 21	65 32	4 22	Eastport	55	+1 08	+1 47	+10.0	+2.0	1.45
28	St. John Harbor	45 14	66 04	4 24	Eastport	55	+0 56	+0 51	+ 4.1	+1.5	1.14
29	Lepreau Bay	45 07	66 31	4 26	Eastport	55	+0 55	+0 54	+ 4.8	+1.4	1.18
30	Fish Head, Grand Manan Island	44 47	66 44	4 27	Eastport	55	+0 53	+1 16	+ 2.8	+1.4	1.08
31	Seal Cove, Grand Manan Island	44 38	66 50	4 27	Eastport	55	+0 34	+0 51	+ 0.6	+1.2	0.96
32	Machias Seal Island Light	44 30	67 06	4 28	Eastport	55	+0 48	+0 57	− 1.4	+1.2	0.86
	NEW BRUNSWICK AND MAINE.						*Time meridian, 75° W.*		*Mean Low Water.*		
	Passamaquoddy Bay.										
33	Lubec, Me	44 52	66 59	4 28	Eastport	55	−0 05	−0 02	+ 0.1	0.0	1.01
34	Deep Cove, Cobscook Bay, Me	44 54	67 01	4 28	Eastport	55	+0 11	+0 18	+ 1.2	0.0	1.07
35	Federal Harbor, Cobscook B., Me	44 52	67 04	4 28	Eastport	55	+0 15	+0 22	+ 0.8	0.0	1.04
36	Welchpool, Campobello I., N. B.	44 53	66 57	4 28	Eastport	55	−0 02	−0 01	+ 2.2	0.0	1.12
37	EASTPORT, ME	44 54	66 59	4 28	Eastport	55	0 00	0 00	0.0	0.0	1.00
38	Gleason Cove, Me	44 58	67 03	4 28	Eastport	55	+0 05	+0 08	+ 0.2	0.0	1.01
39	L'Etang, N. B.	45 04	66 50	4 27	Eastport	55	−0 03	−0 04	+ 2.1	0.0	1.12
	St. Croix River.										
40	St. Andrew, N. B	45 04	67 03	4 28	Eastport	55	+0 09	+0 13	+ 3.5	0.0	1.19
41	Robbinston, Me	45 05	67 06	4 28	Eastport	55	+0 09	+0 14	+ 1.6	0.0	1.09
42	Dochet Island Light, Me	45 08	67 08	4 29	Eastport	55	+0 16	+0 21	+ 1.7	0.0	1.09
43	Dufferin (The Ledge), N. B	45 10	67 12	4 29	Eastport	55	+0 21	+0 27	+ 1.8	0.0	1.10
44	Calais, Me	45 11	67 17	4 29	Eastport	55	+0 28	+0 36	+ 2.1	0.0	1.12
	MAINE—continued.										
45	West Quoddy Head	44 49	66 57	4 28	Eastport	55	−0 14	−0 13	− 3.0	0.0	0.84
46	Cutler, Little River	44 39	67 13	4 29	Eastport	55	−0 25	−0 26	− 4.1	0.0	0.77
47	Starboard Island, Machias Bay	44 36	67 23	4 30	Eastport	55	−0 23	−0 23	− 5.7	0.0	0.69
48	Machiasport, Machias Bay	44 42	67 24	4 30	Eastport	55	−0 05	−0 04	− 4.7	0.0	0.74
49	Little Kennebec Bay	44 37	67 26	4 30	Eastport	55	−0 21	−0 21	− 5.4	0.0	0.70
50	Roque I Harbor, Englishman Bay	44 34	67 31	4 30	Eastport	55	−0 18	−0 18	− 5.9	0.0	0.68
51	Moose Peak Light	44 28	67 32	4 30	Eastport	55	−0 34	−0 39	− 6.2	0.0	0.66
52	Jonesport	44 32	67 36	4 30	Eastport	55	−0 09	−0 14	− 6.5	0.0	0.64
53	Nash Island Light	44 28	67 45	4 31	Boston	63	−1 00	−1 00	+ 1.4	0.0	1.15
54	Addison Point, Pleasant River	44 37	67 45	4 31	Boston	63	−0 26	−0 26	+ 1.7	0.0	1.18
55	Trafton Island, Narraguagus Bay	44 29	67 50	4 31	Boston	63	−0 57	−1 07	+ 1.6	0.0	1.17
56	Millbridge, Narraguagus Bay	44 32	67 53	4 32	Boston	63	−0 45	−0 45	+ 1.7	0.0	1.18
57	Pigeon Hill Bay	44 27	67 52	4 31	Boston	63	−0 56	−0 56	+ 1.6	0.0	1.12
58	Dyer Bay	44 27	67 55	4 32	Boston	63	−0 51	−0 51	+ 1.3	0.0	1.14
59	Indian Harbor, Gouldsboro Bay	44 24	67 58	4 32	Boston	63	−0 55	−0 55	+ 0.9	0.0	1.09

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	7 38	1 50	7 27a	1 56b	6.1	7.5	4.6	6.5	0.6	1.1	.....	1.2	3.8	3.4	19.0
2	7 49	2 01	7 37a	2 07b	5.7	7.0	4.3	6.1	0.6	1.1	.....	1.2	3.5	3.2	18.5
3	7 49	2 01	7 37a	2 07b	5.7	7.0	4.3	6.1	0.6	1.1	.....	1.2	3.5	3.2	18.0
4	8 48	3 00	8 41a	3 04b	9.0	11.0	6.7	9.5	0.7	1.3	.....	1.4	5.5	4.9	18.0
5	8 42	2 55	8 33a	3 00b	9.1	11.0	6.8	9.6	0.6	1.1	.....	1.3	5.5	3.8	18.0
6	9 35	3 23	9 30a	3 29b	11.2	12.8	9.5	11.0	1.0	0.9	.....	1.3	6.4	5.7	17.5
7	9 11	3 04	9 06a	3 10b	10.5	12.0	8.9	10.3	1.0	0.8	.....	1.2	6.0	5.1	18.0
8	9 13	3 11	9 08a	3 17b	11.2	12.8	9.5	11.0	1.0	0.9	.....	1.3	6.4	5.7	18.0
9	10 01	3 42	9 56a	3 47b	14.0	16.0	11.8	13.8	1.1	1.0	.....	1.4	8.0	7.1	18.0
10	10 37	4 30	10 33a	4 34b	18.2	20.8	15.4	17.9	1.3	1.1	.....	1.6	10.4	9.2	18.5
11	10 34	4 31	10 30a	4 35b	19.3	22.0	16.3	19.0	1.3	1.1	.....	1.7	11.0	9.7	18.5
12	10 43	4 38	10 39a	4 42b	21.1	24.1	17.9	20.7	1.4	1.2	.....	1.8	12.0	10.6	19.0
13	10 52	4 44	10 48a	4 40b	24.1	27.5	20.4	23.6	1.5	1.3	.....	1.9	13.8	12.1	19.0
14	11 17	5 12	11 14a	5 16b	25.1	28.7	21.2	24.7	1.5	1.3	.....	1.9	14.4	12.6	19.5
15	11 05	5 14	11 01a	5 14b	27.8	32.0	23.3	28.6	1.5	1.3	.....	1.9	16.0	14.2	20.0
16	11 09	5 29	11 06a	5 32b	28.9	33.0	24.4	28.4	1.6	1.4	.....	2.0	16.5	14.5	20.5
17	11 17	5 42	11 14a	5 45b	31.5	36.0	26.6	31.0	1.7	1.5	.....	2.2	18.0	15.7	20.5
18	11 31	6 02	11 26a	6 03b	34.0	39.0	28.4	35.0	1.9	1.6	.....	2.3	19.5	17.4	21.0
19	12 09	6 37	11 41a	6 34b	37.7	43.0	31.9	37.1	1.9	1.6	.....	2.3	21.5	18.9	21.0
20	12 21	6 56	12 18a	6 59b	42.0	48.0	35.5	41.4	2.0	1.7	.....	2.5	24.0	21.1	21.5
21	0 07	7 07	0 04b	7 10b	44.2	50.5	37.4	43.6	2.0	1.7	.....	2.5	25.2	22.2	21.0
22	11 25	6 00	11 22a	6 03b	32.2	37.0	26.9	33.2	2.0	1.7	.....	2.5	18.5	16.5	21.0
23	11 46	6 46	11 58a	6 49b	39.6	45.2	33.5	39.0	1.9	1.6	.....	2.4	22.6	19.9	22.0
24	11 36	6 26	11 33a	6 29b	35.9	41.0	30.4	35.3	1.8	1.5	.....	2.3	20.5	18.1	21.5
25	11 39	6 25	11 36a	6 28b	39.4	45.0	33.3	38.8	1.9	1.6	.....	2.4	22.5	19.8	21.5
26	12 00	6 55	11 57a	6 58b	41.2	47.0	34.9	40.5	1.9	1.7	.....	2.5	23.5	20.7	21.5
27	11 23	5 58	11 20a	6 01b	26.3	30.0	22.2	25.8	1.5	1.3	.....	2.0	15.0	13.3	20.0
28	11 09	5 00	11 05a	5 04b	20.8	23.8	17.6	21.2	1.4	1.3	8 08	1.8	11.9	10.6	19.5
29	11 06	5 01	11 02a	5 05b	21.5	24.5	18.2	21.0	1.4	1.2	.....	1.8	12.2	10.8	19.0
30	11 03	5 22	10 59a	5 26b	19.7	22.5	16.7	19.4	1.3	1.1	.....	1.7	11.2	9.8	18.5
31	10 44	4 57	10 39a	5 02b	17.5	20.0	14.8	17.2	1.3	1.1	.....	1.6	10.0	8.8	18.5
32	10 57	5 02	10 52a	5 07b	15.7	18.0	13.2	16.3	1.2	1.1	.....	1.6	9.0	8.0	18.0
33	11 04	5 03	11 00a	5 08b	18.3	20.9	15.4	19.0	1.3	1.2	.....	1.8	9.2	9.5	18.5
34	11 20	5 23	11 16a	5 27b	19.4	22.3	16.3	20.1	1.3	1.2	.....	1.8	9.7	10.0	18.5
35	11 24	5 27	11 20a	5 31b	19.0	21.8	16.0	19.7	1.3	1.2	.....	1.8	9.5	9.8	18.5
36	11 07	5 04	11 03a	5 08b	20.4	23.5	17.0	21.1	1.3	1.2	.....	1.8	10.2	10.3	18.5
37	11 09	5 05	11 05a	5 10b	18.2	20.9	15.2	18.9	1.3	1.2	8 14	1.8	9.1	9.4	18.5
38	11 14	5 13	11 10a	5 18b	18.4	21.2	15.5	19.1	1.3	1.2	.....	1.8	9.2	9.5	18.5
39	11 07	5 02	11 03a	5 06b	20.3	23.3	17.1	21.0	1.4	1.2	.....	1.9	10.2	10.4	19.0
40	11 18	5 18	11 14a	5 22b	21.7	24.9	18.2	22.5	1.4	1.3	.....	1.9	10.8	11.2	19.0
41	11 18	5 19	11 14a	5 23b	19.8	22.8	16.6	20.5	1.3	1.2	.....	1.8	9.9	10.2	19.0
42	11 24	5 25	11 20a	5 29b	19.9	22.9	16.7	20.6	1.3	1.2	.....	1.8	10.0	10.3	19.0
43	11 29	5 31	11 25a	5 36b	20.0	23.0	16.8	20.7	1.4	1.2	.....	1.9	10.0	10.3	19.0
44	11 36	5 40	11 32a	5 44b	20.3	23.3	17.1	21.0	1.4	1.2	.....	1.9	10.2	10.4	19.0
45	10 55	4 52	10 50a	4 57b	15.2	17.5	12.8	15.8	1.2	1.1	.....	1.6	7.6	7.9	18.5
46	10 43	4 38	10 39a	4 42b	14.1	16.2	11.9	14.7	1.2	1.0	.....	1.5	7.0	7.3	18.0
47	10 44	4 40	10 39a	4 46b	12.5	14.4	10.5	13.1	1.1	1.0	.....	1.5	6.2	6.5	18.0
48	11 02	4 59	10 57a	5 04b	13.5	15.5	11.3	14.1	1.1	1.0	.....	1.5	6.8	7.0	18.0
49	10 46	4 42	10 41a	4 48b	12.8	14.7	10.8	13.4	1.1	1.2	.....	1.5	6.4	6.7	18.0
50	10 49	4 45	10 44a	4 50b	12.3	14.1	10.3	12.9	1.1	0.9	.....	1.4	6.2	6.4	18.0
51	10 33	4 24	10 28a	4 30b	12.0	13.8	10.0	12.5	1.0	0.9	.....	1.4	6.0	6.3	18.0
52	10 58	4 49	10 53a	4 55b	11.7	13.5	9.8	12.2	1.0	0.9	.....	1.4	5.8	6.1	18.0
53	10 40	4 30	10 34a	4 38b	11.0	12.6	9.2	12.4	1.4	1.1	.....	1.8	5.5	6.1	17.5
54	11 14	5 04	11 08a	5 12b	11.3	13.0	9.5	12.7	1.4	1.1	.....	1.8	5.6	6.2	17.5
55	10 43	4 23	10 37a	4 31b	11.2	12.9	9.4	12.6	1.4	1.1	.....	1.8	5.6	6.2	17.5
56	10 54	4 44	10 48a	4 52b	11.3	13.0	9.5	12.7	1.4	1.1	.....	1.8	5.6	6.2	17.5
57	10 44	4 34	10 38a	4 42b	11.2	12.9	9.4	12.6	1.4	1.1	.....	1.8	5.6	6.2	17.5
58	10 48	4 38	10 42a	4 46b	10.9	12.5	9.2	12.3	1.4	1.1	.....	1.7	5.4	6.0	17.5
59	10 44	4 34	10 38a	4 42b	10.5	12.1	8.9	11.8	1.3	1.1	.....	1.7	5.2	5.8	17.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW	Ratio of ranges.
	NORTH AMERICA (East Coast)—Continued.										
	MAINE—continued.	North.	West.				Time meridian, 75° W.		Mean Low Water.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Gouldsboro Point	44 28	67 59	4 32	Boston	63	−0 43	−0 43	+1.4	0.0	1.15
2	Prospect Harbor	44 24	68 01	4 32	Boston	63	−0 49	−0 50	+1.2	0.0	1.13
3	Winter Harbor, Frenchman Bay	44 23	68 05	4 32	Boston	63	−0 47	−0 48	+1.2	0.0	1.13
4	Eastern Pt. Har., Frenchman Bay	44 28	68 11	4 33	Boston	63	−0 39	−0 40	+1.6	0.0	1.17
5	Sullivan, Frenchman Bay	44 31	68 12	4 33	Boston	63	−0 29	−0 29	+1.9	0.0	1.20
6	Mount Desert Narrows	44 26	68 22	4 33	Boston	63	−0 28	−0 28	+1.9	0.0	1.20
7	Salisbury Cove, Mt. Desert Island	44 26	68 17	4 33	Boston	63	−0 37	−0 38	+1.7	0.0	1.18
8	Bar Harbor, Mount Desert Island	44 23	68 12	4 33	Boston	63	−0 44	−0 45	+1.5	0.0	1.16
9	Southwest Har., Mt. Desert Island	44 16	68 19	4 33	Boston	63	−0 44	−0 45	+0.5	0.0	1.05
10	Somesville, Mount Desert Island	44 22	68 20	4 33	Boston	63	−0 34	−0 35	+0.4	0.0	1.04
11	Bass Harbor, Mt. Desert Island	44 15	68 21	4 33	Boston	63	−0 45	−0 46	+0.4	0.0	1.04
12	Pretty Marsh Har., Mt. Desert I.	44 20	68 25	4 34	Boston	63	−0 36	−0 37	+0.6	0.0	1.06
13	Union River, Blue Hill Bay	44 30	68 26	4 34	Boston	63	−0 26	−0 26	+1.9	0.0	1.20
14	Blue Hill Harbor, Blue Hill Bay	44 24	68 34	4 34	Boston	63	−0 30	−0 30	+1.3	0.0	1.14
15	Allen Cove, Blue Hill Bay	44 18	68 32	4 34	Boston	63	−0 35	−0 36	+0.7	0.0	1.07
16	Mackerel Cove, Blue Hill Bay	44 10	68 26	4 34	Boston	63	−0 43	−0 44	+0.6	0.0	1.06
17	Naskeag Har., Eggemoggin Reach	44 13	68 33	4 34	Boston	63	−0 37	−0 41	+0.4	0.0	1.04
18	Sedgwick, Eggemoggin Reach	44 18	68 37	4 34	Boston	63	−0 19	−0 23	+0.3	0.0	1.03
	Penobscot Bay.										
19	Matinicus Harbor	43 52	68 53	4 36	Boston	63	−0 50	−0 54	−0.7	0.0	0.93
20	Head Harbor, Isle au Haut	44 01	68 37	4 34	Boston	63	−0 48	−0 52	−0.5	0.0	0.95
21	Kimball Island	44 04	68 39	4 35	Boston	63	−0 44	−0 48	−0.3	0.0	0.97
22	Carvers Harbor, Fox Islands	44 03	68 50	4 35	Boston	63	−0 41	−0 45	−0.3	0.0	0.97
23	Iron Point, Fox Islands	44 08	68 52	4 35	Boston	63	−0 28	−0 32	+0.4	0.0	1.04
24	Pulpit Harbor, Fox Islands	44 09	68 53	4 36	Boston	63	−0 33	−0 36	+0.3	0.0	1.04
25	Rockland	44 06	69 06	4 36	Boston	63	−0 26	−0 30	0.0	0.0	1.00
26	Greens Landing, Deer Isle	44 09	68 40	4 35	Boston	63	−0 37	−0 41	0.0	0.0	1.00
27	Oceanville, Deer Isle	44 12	68 38	4 35	Boston	63	−0 36	−0 40	+0.2	0.0	1.02
28	Northwest Harbor, Deer Isle	44 13	68 41	4 35	Boston	63	−0 27	−0 31	+0.1	0.0	1.01
29	Camden	44 12	69 03	4 36	Boston	63	−0 22	−0 26	+0.1	0.0	1.01
30	Castine	44 23	68 48	4 35	Boston	63	−0 11	−0 14	+0.2	0.0	1.02
31	Belfast	44 25	69 00	4 36	Boston	63	0 00	−0 03	+0.6	0.0	1.06
	Penobscot River.										
32	Fort Point	44 28	68 49	4 35	Boston	63	−0 02	−0 05	+0.5	0.0	1.05
33	Bucksport	44 35	68 49	4 35	Boston	63	+0 14	+0 12	+1.0	0.0	1.11
34	Hampden	44 45	68 50	4 35	Boston	63	+0 54	+0 58	+2.4	0.0	1.25
35	Bangor	44 49	68 47	4 35	Boston	63	+1 12	+1 21	+3.5	0.0	1.37
	Outer coast.										
36	Muscle Ridge Channel	44 01	69 05	4 36	Portland	59	−0 06	−0 05	+0.6	0.0	1.07
37	Tennant Harbor	43 58	69 12	4 37	Portland	59	−0 16	−0 15	+0.6	0.0	1.07
38	Herring Gut	43 56	69 16	4 37	Portland	59	−0 14	−0 13	+0.6	0.0	1.07
39	Thomaston, St. George River	44 04	69 11	4 37	Portland	59	+0 11	+0 12	+1.2	0.0	1.14
40	New Harbor, Muscongus Bay	43 52	69 29	4 38	Portland	59	−0 19	−0 19	+0.5	0.0	1.06
41	Broad Cove, Medomak River	44 02	69 24	4 38	Portland	59	−0 01	−0 01	+0.6	0.0	1.07
42	Waldoboro, Medomak River	44 06	69 23	4 38	Portland	59	+0 19	+0 20	+1.2	0.0	1.14
43	Johns Bay	43 52	69 32	4 38	Portland	59	−0 19	−0 19	+0.6	0.0	1.07
44	East Boothbay, Damariscotta R.	43 52	69 35	4 38	Portland	59	−0 09	−0 09	+0.2	0.0	1.03
45	Newcastle, Damariscotta River	44 03	69 33	4 38	Portland	59	+0 16	+0 17	+0.9	0.0	1.11
46	Boothbay	43 50	69 39	4 39	Portland	59	−0 09	−0 09	+0.6	0.0	1.07
47	Herman Harbor, Sheepscot River	43 49	69 43	4 39	Portland	59	−0 09	−0 09	+0.7	0.0	1.09
48	Jewett Cove, Sheepscot River	43 52	69 42	4 39	Portland	59	−0 03	−0 03	+0.8	0.0	1.10
49	Wiscasset, Sheepscot River	44 00	69 40	4 39	Portland	59	+0 15	+0 16	+1.0	0.0	1.12
50	Hockomoc Bay	43 53	69 44	4 39	Portland	59	+0 13	+0 14	+0.5	0.0	1.06
	Kennebec River.										
51	Hunniwell Point	43 45	69 47	4 39	Portland	59	+0 16	+0 08	−0.5	0.0	0.95
52	Phippsburg	43 49	69 48	4 39	Portland	59	+0 11	+0 11	−0.2	0.0	0.98
53	Bath	43 55	69 49	4 39	Portland	59	+1 05	+1 23	−1.9	0.0	0.79
54	Pleasant Point	43 58	69 52	4 39	Portland	59	+2 18	+2 39	−4.1	0.0	0.54
55	Abagadasset Point	44 00	69 49	4 39	Portland	59	+2 20	+2 41	−8.2	0.0	0.64
56	Bowdoinham	44 01	69 53	4 40	Portland	59	+2 23	+2 52	−2.8	0.0	0.69
57	Dresden	44 07	69 45	4 39	Portland	59	+2 47	+3 17	−3.7	0.0	0.58
58	Gardiner	44 14	69 46	4 39	Portland	59	+3 30	+4 17	−3.7	0.0	0.58
59	Hallowell	44 17	69 47	4 39	Portland	59	+3 56	+5 10	−4.5	0.0	0.49
60	Augusta	44 18	69 46	4 39	Portland	59	+4 11	+5 25	−4.5	0.0	0.49

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	10 56	4 46	10 50a	4 54b	11.0	12.6	9.2	12.3	1.4	1.1	.....	1.8	5.5	6.1	17.5
2	10 50	4 39	10 44a	4 47b	10.8	12.4	9.1	12.2	1.4	1.1	.....	1.7	5.4	6.0	17.5
3	10 52	4 41	10 46a	4 49b	10.8	12.4	9.1	12.2	1.4	1.1	.....	1.7	5.4	6.0	17.5
4	10 59	4 48	10 53a	4 56b	11.2	12.9	9.4	12.6	1.4	1.1	.....	1.8	5.6	6.2	17.0
5	11 09	4 59	11 03a	5 07b	11.5	13.2	9.7	12.9	1.4	1.1	.....	1.8	5.8	6.3	17.0
6	11 10	5 00	11 04a	5 08b	11.5	13.2	9.7	12.9	1.4	1.1	.....	1.8	5.8	6.3	17.0
7	11 01	4 50	10 55a	4 58b	11.3	13.0	9.5	12.7	1.4	1.1	.....	1.8	5.6	6.2	17.0
8	10 54	4 43	10 48a	4 51b	11.1	12.8	9.3	12.5	1.4	1.1	.....	1.8	5.6	6.1	17.0
9	10 54	4 43	10 48a	4 51b	11.1	11.6	8.5	11.3	1.3	1.0	.....	1.7	5.0	5.6	17.0
10	11 04	4 53	10 58a	5 01b	10.0	11.5	8.4	11.2	1.3	1.0	.....	1.7	5.0	5.5	17.0
11	10 53	4 42	10 47a	4 50b	10.0	11.5	8.4	11.2	1.3	1.0	.....	1.7	5.0	5.5	17.0
12	11 01	4 50	10 55a	4 58b	10.2	11.7	8.6	11.5	1.3	1.1	.....	1.7	5.1	5.7	17.0
13	11 11	5 01	11 05a	5 09b	11.5	13.2	9.7	12.9	1.4	1.1	.....	1.8	5.8	6.3	17.0
14	11 07	4 57	11 01a	5 05b	10.9	12.5	9.2	12.3	1.4	1.1	.....	1.8	5.4	6.3	17.0
15	11 02	4 51	10 56a	4 59b	10.3	11.8	8.7	11.6	1.3	1.1	.....	1.7	5.2	5.7	17.0
16	10 54	4 43	10 48a	4 51b	10.2	11.7	8.6	11.5	1.3	1.1	.....	1.7	5.1	5.7	16.5
17	11 00	4 46	10 54a	4 54b	10.0	11.5	8.4	11.2	1.3	1.0	.....	1.7	5.0	5.5	16.5
18	11 18	5 04	11 12a	5 12b	9.9	11.4	8.3	11.1	1.3	1.0	.....	1.7	5.0	5.5	17.0
19	10 45	4 31	10 39a	4 39b	8.9	10.2	7.5	10.1	1.2	1.0	.....	1.6	4.4	5.0	16.0
20	10 49	4 35	10 43a	4 43b	9.1	10.5	7.6	10.3	1.2	1.0	.....	1.6	4.6	5.1	17.0
21	10 52	4 38	10 46a	4 46b	9.3	10.7	7.8	10.5	1.3	1.0	.....	1.6	4.6	5.2	17.0
22	10 55	4 41	10 49a	4 49b	9.3	10.7	7.8	10.5	1.3	1.0	.....	1.6	4.6	5.2	16.0
23	11 08	4 54	11 02a	5 02b	10.0	11.5	8.4	11.2	1.3	1.0	.....	1.7	5.0	5.5	16.0
24	11 02	4 49	10 56a	4 57b	9.9	11.4	8.3	11.2	1.3	1.0	8 14	1.7	5.0	5.5	16.0
25	11 09	4 55	11 03a	5 03b	9.6	11.0	8.1	10.8	1.3	1.0	.....	1.6	4.8	5.5	16.0
26	10 59	4 45	10 53a	4 53b	9.6	11.0	8.1	10.8	1.3	1.0	.....	1.6	4.8	5.3	16.5
27	11 00	4 46	10 54a	4 54b	9.8	11.3	8.2	11.0	1.3	1.0	.....	1.7	4.9	5.4	16.5
28	11 09	4 55	11 03a	5 03b	9.7	11.2	8.1	10.9	1.3	1.0	.....	1.6	4.8	5.4	16.5
29	11 13	4 59	11 07a	5 07b	9.7	11.2	8.1	10.9	1.3	1.0	.....	1.6	4.8	5.4	16.5
30	11 25	5 12	11 19a	5 20b	9.8	11.3	8.2	11.0	1.3	1.0	.....	1.7	4.9	5.4	16.5
31	11 35	5 22	11 29a	5 30b	10.2	11.7	8.6	11.5	1.3	1.1	.....	1.7	5.1	5.7	16.5
32	11 34	5 21	11 28a	5 29b	10.1	11.6	8.5	11.3	1.3	1.0	.....	1.7	5.0	5.7	16.5
33	11 50	5 38	11 44a	5 46b	10.6	12.2	8.9	11.9	1.3	1.1	.....	1.7	5.3	5.9	17.0
34	0 05	6 24	0 00b	6 31b	12.0	13.8	10.8	13.2	1.4	1.1	.....	1.8	6.0	6.5	17.0
35	0 23	6 47	0 18b	6 54b	13.1	15.1	11.0	13.4	1.5	1.2	.....	1.9	6.6	7.2	17.0
36	11 05	4 51	10 59a	5 00b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.2	16.0
37	10 54	4 40	10 48a	4 49b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.2	16.0
38	10 56	4 42	10 50a	4 51b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.2	16.0
39	11 21	5 07	11 15a	5 16b	10.0	11.5	8.4	11.2	1.5	1.2	.....	1.9	5.0	5.6	16.0
40	10 50	4 35	10 44a	4 44b	9.3	10.7	7.8	10.5	1.4	1.1	.....	1.8	4.6	5.2	15.5
41	11 08	4 53	11 02a	5 02b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.3	16.0
42	11 28	5 14	11 22a	5 23b	10.0	11.5	8.4	11.2	1.5	1.1	.....	1.9	5.0	5.5	16.0
43	10 50	4 35	10 44a	4 44b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.3	15.5
44	11 00	4 45	10 53a	4 55b	9.0	10.4	7.6	10.2	1.4	1.1	.....	1.8	4.5	4.7	15.5
45	11 25	5 11	11 19a	5 20b	9.7	11.2	8.1	10.9	1.5	1.2	.....	1.8	4.8	5.5	15.5
46	10 59	4 44	10 53a	4 53b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.5	15.5
47	10 59	4 44	10 53a	4 53b	9.5	10.9	8.0	10.7	1.4	1.1	.....	1.8	4.8	5.3	15.5
48	11 05	4 50	10 59a	4 59b	9.6	11.0	8.1	10.8	1.4	1.1	.....	1.8	4.8	5.3	15.5
49	11 23	5 09	11 17a	5 18b	9.8	11.2	8.2	11.0	1.5	1.2	.....	1.8	4.9	5.5	15.5
50	11 21	5 07	11 15a	5 16b	9.3	10.7	7.8	10.5	1.4	1.1	.....	1.8	4.6	5.2	15.5
51	11 24	5 01	11 17a	5 11b	8.3	9.5	7.0	9.5	1.4	1.1	.....	1.7	4.2	4.6	15.5
52	11 19	5 04	11 12a	5 14b	8.6	9.9	7.2	9.8	1.4	1.1	.....	1.7	4.3	4.8	15.5
53	12 18	6 16	12 05a	6 27b	6.9	7.9	5.8	7.9	1.2	1.0	.....	1.6	3.4	3.9	15.5
54	1 01	7 32	0 51b	7 46b	4.7	5.4	4.0	5.5	1.0	0.8	.....	1.3	2.4	2.7	15.5
55	1 03	7 34	0 55b	7 46b	5.6	6.4	4.7	6.5	1.1	0.9	.....	1.4	2.8	3.2	15.5
56	1 05	7 44	0 57b	7 56b	6.0	6.9	5.0	7.0	1.1	1.0	.....	1.5	3.0	3.5	15.5
57	1 30	8 10	1 22b	8 22b	5.1	5.9	4.3	6.0	1.1	0.8	.....	1.3	2.6	2.9	15.5
58	2 13	9 09	2 05b	9 21b	5.1	5.9	4.3	6.0	1.1	0.8	.....	1.3	2.6	2.9	15.5
59	2 39	10 03	2 29b	10 17b	4.3	4.9	3.6	5.1	1.0	0.8	.....	1.2	2.2	2.5	15.5
60	2 54	10 18	2 44b	10 32b	4.3	4.9	3.6	5.1	1.0	0.8	.....	1.2	2.2	2.5	15.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	MAINE—continued.										
	Casco Bay.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Small Point Harbor	43 44	69 51	4 39	Portland	59	−0 10	−0 10	0.0	0.0	1.00
2	Foster Point, New Meadow R.	43 52	69 53	4 40	Portland	59	+0 26	+0 30	+0.1	0.0	1.02
3	Lowell Cove, Orrs Island	43 45	69 59	4 40	Portland	59	+0 05	+0 05	0.0	0.0	1.01
4	Mericoneag Sound	43 43	70 01	4 40	Portland	59	+0 03	+0 03	−0.2	0.0	0.98
5	Harpswell Harbor	43 46	70 00	4 40	Portland	59	−0 12	−0 16	+0.1	0.0	1.02
6	Potts Harbor	43 44	70 02	4 40	Portland	59	+0 05	+0 05	0.0	0.0	1.00
7	Middle Bay Cove, Pennell's Wharf	43 51	69 57	4 40	Portland	59	+0 32	+0 37	+0.6	0.0	1.07
8	Maquoit Bay	43 51	70 01	4 40	Portland	59	+0 28	+0 31	+0.7	0.0	1.09
9	Bartol Point, Freeport River	43 50	70 06	4 40	Portland	59	+0 30	+0 34	+0.2	0.0	1.03
10	Great Chebeag Island	43 45	70 06	4 40	Portland	59	+0 06	+0 06	+0.1	0.0	1.02
11	Parker Point, Yarmouth River	43 47	70 08	4 41	Portland	59	+0 29	+0 32	+0.3	0.0	1.04
12	PORTLAND	43 40	70 14	4 41	Portland	59	0 00	0 00	0.0	0.0	1.00
	Outer coast.										
13	Richmonds Island	43 33	70 14	4 41	Portland	59	−0 06	−0 06	−0.2	0.0	0.98
14	Wood Island	43 27	70 20	4 41	Portland	59	+0 06	0 00	+0.1	0.0	1.02
15	Saco River Entrance	43 28	70 24	4 42	Portland	59	+0 02	+0 02	+0.1	0.0	1.02
16	Kennebunk Port	43 22	70 28	4 42	Portland	59	+0 10	+0 11	+0.1	0.0	1.02
	NEW HAMPSHIRE.										
17	Portsmouth	43 05	70 44	4 43	Portland	59	+0 19	+0 20	+0.4	0.0	1.05
18	Isles of Shoals Light	42 58	70 37	4 42	Portland	59	+0 14	+0 08	0.0	0.0	1.00
19	Hampton Harbor	42 54	70 49	4 43	Portland	59	+0 22	+0 23	−1.1	0.0	0.88
	MASSACHUSETTS.										
20	Newburyport	42 48	70 52	4 43	Portland	59	+0 19	+0 21	−0.9	0.0	0.89
21	Ipswich Entrance	42 41	70 50	4 43	Portland	59	+0 13	+0 15	0.0	0.0	1.01
22	Annisquam	42 40	70 41	4 43	Portland	59	+0 09	+0 11	0.0	0.0	1.01
23	Rockport	42 39	70 37	4 42	Portland	59	−0 08	−0 07	−0.2	0.0	0.98
24	Gloucester	42 37	70 40	4 43	Portland	59	−0 02	0 00	+0.1	0.0	1.02
25	Salem	42 32	70 53	4 44	Boston	63	−0 11	−0 14	−0.4	0.0	0.96
26	Marblehead	42 30	70 51	4 43	Boston	63	−0 19	−0 21	−0.4	0.0	0.96
27	Nahant	42 25	70 54	4 44	Boston	63	−0 18	−0 20	−0.3	0.0	0.97
28	Lynn Harbor	42 27	70 57	4 44	Boston	63	−0 07	−0 09	−0.1	0.0	0.99
29	BOSTON	42 22	71 03	4 44	Boston	63	0 00	0 00	0.0	0.0	1.00
30	Boston Light	42 20	70 53	4 44	Boston	63	−0 18	−0 21	−0.1	0.0	0.99
31	Cohasset Harbor	42 15	70 47	4 43	Boston	63	−0 18	−0 21	−0.2	0.0	0.98
32	Gurnet Light	42 00	70 36	4 42	Boston	63	−0 06	−0 08	−0.2	0.0	0.98
33	Plymouth	41 57	70 40	4 43	Boston	63	−0 09	−0 10	+0.6	0.0	1.06
34	Sandwich	41 46	70 28	4 42	Boston	63	+0 03	+0 01	+0.1	0.0	1.01
35	Sandy Neck Light	41 43	70 17	4 41	Boston	63	+0 06	+0 05	+0.5	0.0	1.05
36	Wellfleet, Cape Cod	41 56	70 02	4 40	Boston	63	−0 11	−0 12	+1.1	0.0	1.12
37	Provincetown, Cape Cod	42 03	70 11	4 41	Boston	63	−0 01	−0 03	−0.4	0.0	0.96
38	Race Point, Cape Cod	42 04	70 15	4 41	Boston	63	−0 09	−0 12	−0.7	0.0	0.93
39	Nauset Harbor, Cape Cod	41 48	69 56	4 40	Boston	63	+0 19	+0 41	−3.1	0.0	0.68
40	Pleasant Bay, Cape Cod	41 43	69 58	4 40	Boston	63	+1 10	+1 44	−6.1	0.0	0.36
41	Chatham, Cape Cod	41 40	69 58	4 40	Boston	63	+0 40	+0 36	−5.6	0.0	0.42
42	Monomoy Point	41 33	70 00	4 40	Boston	63	+0 29	+0 27	−5.9	0.0	0.39
43	Pollock Rip	41 33	69 55	4 40	Boston	63	+0 19	+0 17	−5.5	0.0	0.43
	Nantucket Sound, north side.										
44	Stage Harbor	41 40	69 58	4 40	Newport	67	+4 40	+5 02	−0.2	0.0	0.94
45	Bass River Breakwater	41 38	70 11	4 41	Newport	67	+4 36	+4 46	+0.2	0.0	1.06
46	Point Gammon	41 37	70 16	4 41	Newport	67	+4 32	+4 33	−0.2	0.0	0.94
47	Hyannis	41 38	70 17	4 41	Newport	67	+4 31	+4 31	−0.4	0.0	0.89
48	Succonnesset Point	41 33	70 29	4 42	Old Point Comfort	91	+3 08	+3 00	−0.6	0.0	0.76
	Nantucket Island.										
49	Great Point	41 23	70 03	4 40	Newport	67	+4 17	+4 35	−0.5	0.0	0.86
50	Wauwinet (outer shore)	41 20	70 00	4 40	Newport	67	+4 33	+4 58	−0.2	0.0	0.94
51	Siasconset	41 16	69 58	4 40	Old Point Comfort	91	+2 25	+2 42	−0.2	0.0	0.92
52	Tom Nevers Head	41 14	70 01	4 40	Old Point Comfort	91	+1 13	+0 01	−1.3	0.0	0.48
53	Forked Pond	41 14	70 02	4 40	Old Point Comfort	91	−0 30	−0 09	−1.1	0.0	0.56
54	Weweeder	41 14	70 06	4 40	Old Point Comfort	91	−1 02	−0 47	−0.3	0.0	0.88
55	Smith Point, south side	41 17	70 15	4 41	Old Point Comfort	91	−1 13	−0 57	−0.3	0.0	0.88
56	Smith Point, north side	41 17	70 15	4 41	Old Point Comfort	91	+3 05	+3 02	+0.2	0.0	1.08
57	Nantucket Harbor	41 17	70 06	4 40	Old Point Comfort	91	+3 19	+3 17	+0.6	0.0	1.24

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	10 58	4 43	10 51a	4 53b	8.7	10.0	7.3	9.9	1.4	1.1	.....	1.7	4.4	4.9	15.5
2	11 33	5 22	11 26a	5 32b	8.9	10.2	7.5	10.1	1.4	1.1	.....	1.8	4.4	5.0	15.5
3	11 12	4 57	11 05a	5 07b	8.8	10.1	7.4	10.0	1.4	1.1	.....	1.8	4.4	4.9	15.0
4	11 10	4 55	11 03a	5 05b	8.6	9.9	7.2	9.8	1.4	1.1	.....	1.7	4.3	4.8	15.0
5	10 55	4 36	10 48a	4 46b	8.9	10.2	7.5	10.1	1.4	1.1	.....	1.8	4.4	5.0	15.0
6	11 12	4 57	11 05a	5 07b	8.7	10.0	7.3	9.9	1.4	1.1	.....	1.7	4.4	4.9	15.0
7	11 39	5 29	11 33a	5 38b	9.4	10.8	7.9	10.6	1.4	1.1	.....	1.8	4.7	5.2	15.0
8	11 35	5 23	11 29a	5 32b	9.5	10.9	8.0	10.7	1.4	1.1	.....	1.8	4.8	5.3	15.0
9	11 37	5 26	11 30a	5 36b	9.0	10.4	7.6	10.2	1.4	1.1	.....	1.8	4.5	5.0	15.0
10	11 13	4 58	11 06a	5 08b	8.9	10.2	7.5	10.1	1.4	1.1	.....	1.8	4.4	5.0	15.0
11	11 35	5 23	11 28a	5 33b	9.1	10.5	7.6	10.3	1.4	1.1	.....	1.8	4.6	5.1	15.0
12	11 06	4 51	10 59a	5 00b	8.8	10.1	7.3	9.9	1.4	1.1	8 25	1.8	4.4	4.9	14.5
13	11 00	4 45	10 53a	4 55b	8.6	9.9	7.2	9.8	1.4	1.1	.....	1.7	4.3	4.8	14.5
14	11 12	4 51	11 05a	5 01b	8.9	10.2	7.5	10.2	1.4	1.1	.....	1.8	4.4	5.0	14.5
15	11 07	4 52	11 00a	5 02b	8.9	10.2	7.5	10.2	1.4	1.1	.....	1.8	4.4	5.0	14.5
16	11 15	5 01	11 08a	5 11b	8.9	10.2	7.5	10.2	1.4	1.1	.....	1.8	4.4	5.0	14.0
17	11 23	5 09	11 16a	5 19b	9.2	10.5	7.7	10.4	1.4	1.1	.....	1.8	4.6	5.1	13.5
18	11 19	4 58	11 12a	5 08b	8.7	10.0	7.3	10.0	1.4	1.1	.....	1.7	4.4	4.9	13.5
19	11 26	5 12	11 19a	5 22b	7.7	8.8	6.5	8.8	1.3	1.0	.....	1.6	3.8	4.3	13.0
20	11 23	5 10	11 16a	5 21b	7.9	9.1	6.6	9.0	1.3	1.0	.....	1.7	4.0	4.4	13.0
21	11 17	5 04	11 10a	5 14b	8.8	10.1	7.4	9.9	1.4	1.1	.....	1.8	4.4	4.9	13.0
22	11 13	5 00	11 06a	5 10b	8.8	10.1	7.4	9.9	1.4	1.1	.....	1.8	4.4	4.9	13.0
23	10 57	4 43	10 50a	4 53b	8.6	9.9	7.2	9.7	1.4	1.1	.....	1.7	4.3	4.8	13.5
24	11 02	4 49	10 55a	4 59b	8.9	10.2	7.5	10.0	1.4	1.1	.....	1.8	4.4	5.0	13.0
25	11 16	5 03	11 10a	5 12b	9.2	10.6	7.7	10.0	1.3	1.0	.....	1.6	4.6	4.9	13.0
26	11 09	4 57	11 03a	5 06b	9.2	10.6	7.7	10.0	1.3	1.0	.....	1.6	4.6	4.9	13.0
27	11 09	4 57	11 03a	5 06b	9.3	10.7	7.8	10.1	1.3	1.0	.....	1.6	4.6	4.9	13.0
28	11 20	5 08	11 14a	5 17b	9.5	10.9	8.0	10.3	1.3	1.0	.....	1.7	4.8	5.0	13.0
29	11 27	5 17	11 21a	5 26b	9.6	11.0	8.1	10.4	1.4	1.0	8 58	1.7	4.8	5.1	12.5
30	11 09	4 56	11 03a	5 05b	9.5	10.9	8.0	10.3	1.3	1.0	.....	1.7	4.8	5.1	12.5
31	11 10	4 57	11 04a	5 06b	9.4	10.8	7.9	10.2	1.3	1.0	.....	1.7	4.7	5.0	12.5
32	11 23	5 11	11 17a	5 20b	9.4	10.8	7.9	10.2	1.3	1.0	.....	1.7	4.7	5.0	12.5
33	11 19	5 08	11 13a	5 17b	10.2	11.7	8.6	11.0	1.4	1.0	.....	1.7	5.1	5.4	12.0
34	11 32	5 20	11 26a	5 25b	9.7	11.2	8.1	10.5	1.3	1.0	.....	1.7	4.8	5.2	12.5
35	11 36	5 25	11 30a	5 34b	10.1	11.6	8.5	10.9	1.4	1.0	.....	1.7	5.0	5.4	12.5
36	11 20	5 09	11 14a	5 18b	10.7	12.3	9.0	11.5	1.4	1.0	.....	1.8	5.4	5.7	13.0
37	11 29	5 17	11 23a	5 26b	9.2	10.6	7.7	10.0	1.3	1.0	.....	1.6	4.6	4.9	13.0
38	11 21	5 08	11 15a	5 17b	8.9	10.2	7.5	9.7	1.3	1.0	.....	1.6	4.4	4.8	13.0
39	11 50	6 02	11 43a	6 12b	6.5	7.5	5.5	7.1	1.0	0.7	.....	1.3	3.2	3.4	13.0
40	0 16	7 05	0 07b	7 18b	3.5	4.0	2.9	3.9	0.7	0.5	.....	0.9	1.8	1.9	13.0
41	12 11	5 57	12 01a	6 11b	4.0	4.6	3.4	4.5	0.9	0.6	.....	1.1	2.0	2.2	13.0
42	12 00	5 38	11 50a	6 01b	3.7	4.3	3.1	4.2	0.8	0.6	.....	1.0	1.8	2.0	12.5
43	11 50	5 38	11 40a	5 51b	4.1	4.7	3.4	4.6	0.9	0.6	.....	1.1	2.0	2.2	12.5
44	0 08	6 07	0 08b	5 54b	3.3	4.0	2.4	3.5	0.7	0.1	.....	0.7	1.6	1.6	13.0
45	0 03	5 50	0 03b	5 36b	3.7	4.6	2.7	3.9	0.8	0.1	.....	0.8	1.8	1.8	12.5
46	0 00	5 37	0 00b	5 24b	3.3	4.0	2.4	3.5	0.7	0.1	.....	0.7	1.6	1.6	12.5
47	12 23	5 35	12 23a	5 21b	3.1	3.8	2.3	3.3	0.7	0.1	.....	0.7	1.6	1.5	12.5
48	12 16	5 41	12 16a	5 21b	1.9	2.4	1.4	2.1	0.6	0.1	.....	0.6	1.0	0.9	12.0
49	12 10	5 40	12 10a	5 26b	3.0	3.7	2.2	3.2	0.7	0.1	.....	0.7	1.5	1.5	12.5
50	0 01	6 03	0 01b	5 50b	3.3	4.0	2.4	3.5	0.7	0.1	.....	0.7	1.6	1.6	12.5
51	11 35	5 25	11 35a	5 09b	2.3	2.8	1.7	2.5	0.6	0.1	.....	0.6	1.2	1.1	12.0
52	10 23	3 44	10 23a	3 23b	1.2	1.4	0.9	1.3	0.4	0.1	.....	0.4	0.6	0.6	12.0
53	8 40	2 34	8 40a	2 11b	1.4	1.7	1.0	1.6	0.5	0.1	.....	0.5	0.7	0.7	12.0
54	8 08	1 56	8 08a	1 39b	2.2	2.7	1.6	2.4	0.6	0.1	.....	0.6	1.1	1.1	12.0
55	7 56	1 45	7 56a	1 28b	2.2	2.7	1.6	2.4	0.6	0.1	.....	0.6	1.1	1.1	12.0
56	12 14	5 44	12 14a	5 28b	2.7	3.3	2.0	2.9	0.7	0.1	.....	0.7	1.4	1.3	12.0
57	0 04	6 00	0 04b	5 46b	3.1	3.8	2.3	3.3	0.7	0.1	.....	0.7	1.6	1.5	12.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	MASSACHUSETTS—continued.										
	Tuckernuck Island.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	East Pond	41 18	70 15	4 41	Old Point Comfort	91	+2 56	+2 50	+0.1	0.0	1.04
	Muskeget Island.										
2	Life-saving station	41 20	70 19	4 41	Old Point Comfort	91	+1 58	+2 15	−0.9	0.0	0.64
	Chappaquiddick Island.										
3	Cape Poge Light	41 25	70 27	4 42	Old Point Comfort	91	+2 45	+2 31	−0.5	0.0	0.80
4	Chappaquiddick Dike	41 22	70 27	4 42	Old Point Comfort	91	+2 31	+2 22	−0.9	0.0	0.64
5	Wasque Point	41 21	70 27	4 42	Old Point Comfort	91	+0 04	+0 20	−1.0	0.0	0.60
	Marthas Vineyard.										
6	Edgartown	41 23	70 31	4 42	Old Point Comfort	91	+3 08	+2 40	−0.5	0.0	0.80
7	Katama Bay	41 22	70 29	4 42	Old Point Comfort	91	+0 04	+0 19	−0.8	0.0	0.68
8	Pahognet	41 21	70 35	4 42	Old Point Comfort	91	−0 30	−0 15	−0.4	0.0	0.84
9	Chilmark Pond	41 20	70 43	4 43	Old Point Comfort	91	−1 02	−0 47	0.0	0.0	1.00
10	No Mans Land Island	41 16	70 49	4 43	Old Point Comfort	91	−1 42	−1 28	+0.7	0.0	1.28
11	Gay Head Light	41 21	70 51	4 43	Old Point Comfort	91	−1 36	−1 20	+0.5	0.0	1.20
12	Menemsha Bight	41 21	70 47	4 43	Old Point Comfort	91	−1 25	−1 07	+0.2	0.0	1.08
13	Cedar Tree Neck	41 26	70 42	4 43	Old Point Comfort	91	−1 18	−0 43	−0.2	0.0	0.92
14	Chappaquonsett	41 28	70 38	4 43	Old Point Comfort	91	−0 08	+0 35	−0.2	0.0	0.92
15	West Chop Light	41 29	70 36	4 42	Old Point Comfort	91	+2 26	+1 52	−0.9	0.0	0.64
16	Vineyard Haven	41 28	70 36	4 42	Old Point Comfort	91	+2 35	+2 22	−0.8	0.0	0.68
17	East Chop Light	41 28	70 34	4 42	Old Point Comfort	91	+2 30	+1 59	−0.9	0.0	0.64
18	Cottage City	41 27	70 33	4 42	Old Point Comfort	91	+2 42	+2 13	−0.8	0.0	0.68
	Vineyard Sound, north side.										
19	Monant Hill	41 33	70 32	4 42	Old Point Comfort	91	+1 16	+1 28	−1.5	0.0	0.40
20	Falmouth	41 32	70 37	4 42	Old Point Comfort	91	+1 16	+1 31	−1.0	0.0	0.60
21	Nobska Point Light	41 31	70 39	4 43	Old Point Comfort	91	−0 36	−0 05	−1.0	0.0	0.60
22	Tarpaulin Cove	41 28	70 45	4 43	Old Point Comfort	91	−1 17	−0 50	−0.2	0.0	0.92
23	Quicks Hole, south side	41 26	70 51	4 43	Newport	67	−0 12	+0 27	−0.4	0.0	0.89
	Buzzards Bay.										
24	Cuttyhunk Light	41 25	70 57	4 44	Newport	67	−0 13	−0 02	0.0	0.0	1.00
25	Penikese Island	41 27	70 55	4 44	Newport	67	−0 12	−0 01	+0.1	0.0	1.03
26	Quicks Hole, north side	41 27	70 50	4 43	Newport	67	−0 12	−0 04	+0.2	0.0	1.06
27	Kettle Cove	41 28	70 47	4 43	Newport	67	−0 06	+0 13	+0.8	0.0	1.23
28	Uncatena I., N. side Woods Hole	41 31	70 42	4 43	Newport	67	+0 09	+0 04	+0.6	0.0	1.17
29	Woods Hole, Fish Comm. Wharf	41 31	70 40	4 43	Old Point Comfort	91	−0 31	−0 31	−0.8	0.0	0.67
30	Hog Island Harbor	41 37	70 38	4 43	Newport	67	0 00	−0 04	+0.6	0.0	1.17
31	Pocasset Harbor	41 41	70 37	4 42	Newport	67	−0 01	−0 08	+0.6	0.0	1.17
32	Back River Harbor	41 44	70 37	4 42	Newport	67	+0 01	−0 13	+0.6	0.0	1.17
33	Wareham River	41 44	70 43	4 43	Newport	67	+0 10	+0 03	+0.6	0.0	1.17
34	Bird Island Light	41 40	70 43	4 43	Newport	67	+0 05	−0 03	+0.8	0.0	1.23
35	Mattapoisett	41 39	70 49	4 43	Newport	67	+0 07	−0 02	+0.4	0.0	1.11
36	Clark Point	41 36	70 54	4 44	Newport	67	+0 02	+0 07	+0.4	0.0	1.11
37	New Bedford	41 38	70 55	4 44	Newport	67	+0 08	+0 17	+0.7	0.0	1.20
38	Dumpling Rock Light	41 32	70 55	4 44	Newport	67	+0 10	+0 07	+0.3	0.0	1.09
39	Westport	41 31	71 04	4 44	Newport	67	+0 09	+0 26	−0.4	0.0	0.89
	RHODE ISLAND.										
	Narragansett Bay.										
40	Sakonnet Point Light	41 27	71 12	4 45	Newport	67	−0 08	+0 05	+0.1	0.0	1.03
41	NEWPORT	41 29	71 20	4 45	Newport	67	0 00	0 00	0.0	0.0	1.00
42	Beavertail Light	41 27	71 24	4 46	Newport	67	−0 07	+0 10	+0.3	0.0	1.09
43	Wickford	41 34	71 27	4 46	Newport	67	+0 05	−0 24	+0.7	0.0	1.20
44	Prudence Island Light	41 36	71 18	4 45	Newport	67	+0 04	−0 24	+0.8	0.0	1.23
45	Bristol Ferry Light	41 39	71 16	4 45	Newport	67	+0 05	−0 20	+0.9	0.0	1.26
46	Bristol	41 40	71 16	4 45	Newport	67	+0 14	−0 04	+0.6	0.0	1.17
47	Fall River, Mass	41 42	71 10	4 45	Sandy Hook	83	+0 29	−0 34	+0.3	0.0	1.07
48	East Greenwich	41 40	71 27	4 46	Charleston	107	+0 05	−1 00	−0.6	0.0	0.88
49	Warren	41 44	71 17	4 45	Charleston	107	+0 08	−0 42	−0.5	0.0	0.89
50	Nayat Point	41 43	71 21	4 45	Charleston	107	−0 02	−0 55	−0.2	0.0	0.96
51	Pawtuxet	41 46	71 23	4 46	Charleston	107	+0 08	−0 51	−0.4	0.0	0.91
52	Providence	41 49	71 24	4 46	Newport	67	+0 25	−0 02	+0.9	0.0	1.27

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	*h. m.*	*h. m.*	*h. m.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*h. m.*	*feet.*	*feet.*	*feet.*	*West.* °
1	12 05	5 32	12 05*a*	5 15*b*	2.6	3.0	1.9	2.8	0.7	0.1	.....	0.7	1.3	1.3	12.0
2	11 07	4 57	11 07*a*	4 37*b*	1.6	2.0	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	12.0
3	11 53	5 12	11 53*a*	4 53*b*	2.0	2.4	1.5	2.2	0.6	0.1	.....	0.6	1.0	1.0	12.0
4	11 39	5 03	11 39*a*	4 43*b*	1.6	2.0	1.2	1.8	0.5	0.1	.....	0.5	0.8	0.8	12.0
5	9 12	3 01	9 12*a*	2 40*b*	1.5	1.8	1.0	1.7	0.5	0.1	.....	0.5	0.8	0.7	12.0
6	12 16	5 21	12 16*a*	5 02*b*	2.0	2.4	1.5	2.2	0.6	0.1	.....	0.6	1.0	1.0	12.0
7	9 12	3 00	9 12*a*	2 42*b*	1.7	2.1	1.2	1.9	0.5	0.1	.....	0.5	0.8	0.8	12.0
8	8 38	2 26	8 38*a*	2 08*b*	2.1	2.6	1.5	2.3	0.6	0.1	.....	0.6	1.0	1.0	12.0
9	8 05	1 53	8 05*a*	1 38*b*	2.5	3.1	1.8	2.7	0.6	0.1	.....	0.6	1.2	1.2	12.0
10	7 25	1 12	7 25*a*	0 58*b*	3.2	4.0	2.3	3.4	0.7	0.1	.....	0.7	1.6	1.6	11.5
11	7 31	1 20	7 31*a*	1 06*b*	3.0	3.7	2.2	3.2	0.7	0.1	.....	0.7	1.5	1.5	11.5
12	7 42	1 33	7 42*a*	1 17*b*	2.7	3.3	2.0	2.9	0.7	0.1	.....	0.7	1.4	1.3	11.5
13	7 49	1 57	7 49*a*	1 41*b*	2.3	2.8	1.7	2.5	0.6	0.1	.....	0.6	1.2	1.1	12.0
14	8 59	3 15	8 59*a*	2 59*b*	2.3	2.8	1.7	2.5	0.6	0.1	.....	0.6	1.2	1.1	12.0
15	11 34	4 33	11 34*a*	4 13*b*	1.6	2.0	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	12.0
16	11 43	5 03	11 43*a*	4 45*b*	1.7	2.1	1.2	1.9	0.5	0.1	.....	0.5	0.8	0.8	12.0
17	11 38	4 40	11 38*a*	4 20*b*	1.6	2.0	1.2	1.8	0.5	0.1	.....	0.5	0.8	0.8	12.0
18	11 50	4 54	11 50*a*	4 36*b*	1.7	2.1	1.2	1.9	0.5	0.1	.....	0.5	0.8	0.8	12.0
19	10 24	4 09	10 24*a*	3 44*b*	1.0	1.2	0.7	1.1	0.4	0.1	.....	0.4	0.5	0.5	12.0
20	10 24	4 12	10 24*a*	3 55*b*	1.5	1.8	1.1	1.6	0.4	0.1	.....	0.4	0.8	0.7	12.0
21	8 32	2 36	8 32*a*	2 19*b*	1.5	1.8	1.1	1.6	0.4	0.1	.....	0.4	0.8	0.7	12.0
22	7 51	1 51	7 51*a*	1 35*b*	2.3	2.8	1.7	2.5	0.6	0.1	.....	0.6	1.2	1.1	12.0
23	7 38	1 29	7 38*a*	1 15*b*	3.1	3.8	2.3	3.3	0.7	0.1	.....	0.7	1.6	1.5	12.0
24	7 30	0 59	7 36*a*	0 45*a*	3.5	4.3	2.6	3.7	0.8	0.1	.....	0.8	1.8	1.7	12.0
25	7 37	1 00	7 37*a*	0 46*a*	3.6	4.5	2.6	3.8	0.8	0.1	.....	0.8	1.8	1.8	12.0
26	7 38	0 58	7 38*a*	0 44*a*	3.7	4.6	2.7	3.9	0.8	0.1	.....	0.8	1.8	1.8	12.0
27	7 44	1 15	7 44*a*	1 03*a*	4.3	5.3	3.1	4.5	0.8	0.1	.....	0.8	2.2	2.1	12.0
28	7 59	1 06	7 59*a*	0 53*a*	4.1	5.0	3.0	4.3	0.8	0.1	.....	0.8	2.0	2.0	12.0
29	8 36	2 09	8 36*a*	1 51*a*	1.7	2.1	1.2	1.9	0.5	0.1	.....	0.5	0.8	0.8	12.0
30	7 50	0 58	7 50*a*	0 45*a*	4.1	5.1	3.0	4.3	0.8	0.1	.....	0.8	2.0	2.0	12.0
31	7 50	0 55	7 50*a*	0 42*a*	4.1	5.1	3.0	4.3	0.8	0.1	.....	0.8	2.0	2.0	12.0
32	7 52	0 50	7 52*a*	0 37*a*	4.1	5.1	3.0	4.3	0.8	0.1	.....	0.8	2.0	2.0	12.0
33	8 00	1 05	8 00*a*	0 52*a*	4.1	5.1	3.0	4.3	0.8	0.1	.....	0.8	2.0	2.0	12.0
34	7 55	0 59	7 55*a*	0 47*a*	4.3	5.3	3.1	4.5	0.8	0.1	.....	0.8	2.2	2.1	12.0
35	7 57	1 00	7 57*a*	0 47*a*	3.9	4.8	2.8	4.1	0.8	0.1	.....	0.8	2.0	1.9	12.0
36	7 51	1 08	7 51*a*	0 55*a*	3.9	4.8	2.8	4.1	0.8	0.1	.....	0.8	2.0	1.9	12.0
37	7 57	1 18	7 57*a*	1 06*a*	4.2	5.2	3.1	4.4	0.8	0.1	.....	0.8	2.1	2.1	12.0
38	7 59	1 08	7 59*a*	0 55*a*	3.8	4.7	2.8	4.0	0.8	0.1	.....	0.8	1.9	1.9	12.0
39	7 58	1 27	7 58*a*	1 13*a*	3.1	3.8	2.3	3.3	0.7	0.1	.....	0.7	1.6	1.5	12.0
40	7 40	1 05	7 40*a*	0 51*a*	3.6	4.5	2.6	3.8	0.8	0.1	.....	0.8	1.8	1.8	12.0
41	7 48	1 00	7 48*a*	0 46*a*	3.5	4.4	2.6	3.7	0.8	0.1	7 31	0.8	1.8	1.7	12.0
42	7 40	1 09	7 40*a*	0 56*a*	3.8	4.7	2.8	4.0	0.8	0.1	.....	0.8	1.9	1.9	12.0
43	7 52	0 35	7 52*a*	0 28*a*	4.2	5.2	3.1	4.4	0.8	0.1	.....	0.8	2.1	2.1	11.5
44	7 52	0 36	7 52*a*	0 24*a*	4.3	5.3	3.1	4.5	0.8	0.1	.....	0.8	2.2	2.1	11.5
45	7 53	0 40	7 54*a*	0 29*a*	4.4	5.2	3.6	4.6	0.8	0.1	.....	0.8	2.2	2.1	11.5
46	8 02	0 56	8 02*a*	0 44*a*	4.1	4.8	3.3	4.3	0.8	0.1	7 46	0.8	2.0	2.0	11.5
47	8 10	0 51	8 11*a*	0 42*a*	4.9	5.8	4.0	5.1	0.8	0.1	.....	0.8	2.4	2.4	12.0
48	8 00	0 45	8 01*a*	0 34*a*	4.5	5.3	3.6	4.7	0.8	0.1	.....	0.8	2.2	2.2	11.5
49	8 04	1 03	8 05*a*	0 52*a*	4.6	5.4	3.7	4.8	0.8	0.1	.....	0.8	2.3	2.2	12.0
50	7 54	0 51	7 55*a*	0 40*a*	4.9	5.8	4.0	5.1	0.8	0.1	.....	0.8	2.4	2.4	12.0
51	8 03	0 54	8 02*a*	1 05*b*	4.7	5.6	3.7	4.9	0.8	0.1	.....	0.8	2 4	2.3	12.0
52	8 12	0 57	8 11*a*	1 09*b*	4.4	5.4	3.4	4.7	0.8	0.1	7 25	0.8	2.2	2.1	12.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	RHODE ISLAND—continued.										
	Outer coast.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Point Judith Light	41 22	71 29	4 46	Newport	67	−0 15	+0 18	−0.4	0.0	0.89
2	Block Island, Basin Harbor	41 10	71 33	4 46	Newport	67	−0 14	+0 26	−0.5	0.0	0.86
3	Watch Hill Light	41 18	71 52	4 47	New London	71	−0 38	−0 53	+0.3	0.0	1.08
	CONNECTICUT.										
	Long Island Sound, north side.										
4	Stonington	41 20	71 54	4 48	New London	71	−0 17	−0 27	+0.3	0.0	1.08
5	Noank, Mystic River Entrance	41 19	71 59	4 48	New London	71	−0 08	−0 12	0.0	0.0	1.00
6	NEW LONDON, Custom-House Whf.	41 21	72 06	4 48	New London	71	0 00	0 00	0.0	0.0	1.00
7	New London Naval Station	41 24	72 06	4 48	New London	71	+0 06	+0 11	+0.1	0.0	1.00
8	Norwich, Thames River	41 32	72 05	4 48	New London	71	+0 41	+0 47	+0.7	0.0	1.24
9	Millstone Point	41 18	72 10	4 49	New London	71	+0 06	+0 04	+0.3	0.0	1.08
10	Saybrook Breakwater	41 16	72 21	4 49	New London	71	+1 04	+0 42	+1.2	0.0	1.44
11	Saybrook, Connecticut River	41 17	72 21	4 49	New London	71	+1 14	+0 57	+1.2	0.0	1.44
12	Lyme Ferry, Connecticut River	41 18	72 20	4 49	New London	71	+1 30	+1 24	+0.9	0.0	1.32
13	Essex, Connecticut River	41 21	72 23	4 50	New London	71	+1 48	+1 51	+0.5	0.0	1.16
14	Chester, Connecticut River	41 24	72 26	4 50	New London	71	+2 16	+2 30	0.0	0.0	1.00
15	Higganum, Connecticut River	41 30	72 33	4 50	New London	71	+3 14	+4 01	−0.5	0.0	0.76
16	Middletown, Connecticut River	41 34	72 39	4 51	New London	71	+3 55	+4 48	−0.9	0.0	0.60
17	South Glastonbury, Conn. River	41 40	72 37	4 50	New London	71	+4 49	+6 01	−1.3	0.0	0.44
18	Wethersfield, Connecticut River	41 43	72 39	4 51	New London	71	+5 23	+6 46	−1.5	0.0	0.36
19	Hartford, Connecticut River	41 46	72 40	4 51	New London	71	+5 52	+7 23	−1.6	0.0	0.32
20	Duck Island	41 16	72 28	4 50	Sandy Hook	83	+3 10	+3 02	−0.1	0.0	0.98
21	Falkner Island Light	41 13	72 39	4 51	Sandy Hook	83	+3 19	+3 09	+0.8	0.0	1.17
22	Money Island, Thimble Islands	41 15	72 45	4 51	Willets Point	75	−0 13	−0 37	−1.7	0.0	0.77
23	Branford	41 16	72 49	4 51	Willets Point	75	−0 09	−0 31	−1.7	0.0	0.77
24	Southwest Ledge Light	41 14	72 55	4 52	Willets Point	75	−0 12	−0 35	−1.6	0.0	0.78
25	New Haven	41 18	72 55	4 52	Willets Point	75	−0 02	−0 22	−1.3	0.0	0.82
26	Milford Roads	41 10	73 02	4 52	Willets Point	75	−0 04	−0 22	−0.7	0.0	0.90
27	Bridgeport	41 10	73 11	4 53	Willets Point	75	0 00	−0 11	−0.1	0.0	0.99
28	Black Rock Harbor Light	41 09	73 13	4 53	Willets Point	75	−0 01	−0 11	−0.2	0.0	0.99
29	Saugatuck	41 06	73 21	4 53	Willets Point	75	−0 03	−0 12	−0.3	0.0	0.96
30	Westport	41 09	73 22	4 53	Willets Point	75	+0 10	−0 01	−0.2	0.0	0.97
31	Wilsons Point	41 06	73 24	4 54	Willets Point	75	−0 03	−0 09	−0.1	0.0	0.99
32	Norwalk Islands Lt., Sheffield Is.	41 03	73 25	4 54	Willets Point	75	−0 05	−0 18	−0.3	0.0	0.96
33	Darien	41 03	73 29	4 54	Willets Point	75	−0 04	−0 17	−0.2	0.0	0.97
34	Stamford	41 02	73 33	4 54	Willets Point	75	−0 03	−0 16	−0.2	0.0	0.97
35	Greenwich	41 02	73 35	4 54	Willets Point	75	−0 02	−0 15	+0.1	0.0	1.01
	NEW YORK.										
	Long Island Sound, north side.										
36	Great Captain Island Light	40 59	73 37	4 54	Willets Point	75	−0 04	−0 17	0.0	0.0	1.00
37	Mamaroneck	40 56	73 44	4 55	Willets Point	75	−0 01	−0 13	+0.2	0.0	1.03
38	New Rochelle	40 54	73 46	4 55	Willets Point	75	+0 06	−0 03	+0.3	0.0	1.04
39	City Island	40 51	73 47	4 55	Willets Point	75	0 00	−0 01	+0.1	0.0	1.01
40	Throgs Neck	40 48	73 47	4 55	Willets Point	75	+0 02	+0 01	0.0	0.0	1.00
	East River.										
41	Whitestone Point	40 48	73 49	4 55	Willets Point	75	+0 05	+0 11	−0.3	0.0	0.96
42	Clauson Point	40 48	73 51	4 55	Willets Point	75	+0 10	+0 14	−0.2	0.0	0.97
43	College Point	40 48	73 51	4 55	Willets Point	75	+0 14	+0 17	−0.2	0.0	0.97
44	Flushing, Flushing Bay	40 46	73 51	4 55	Willets Point	75	+0 33	+0 57	−0.8	0.0	0.89
45	Hunts Point	40 48	73 52	4 55	Willets Point	75	+0 20	+0 16	−0.4	0.0	0.94
46	North Brother Light	40 48	73 54	4 56	Willets Point	75	+0 14	+0 13	−0.5	0.0	0.93
47	Lawrence Point	40 47	73 55	4 56	Willets Point	75	+0 09	+0 11	−0.8	0.0	0.89
48	Polhemus Dock	40 47	73 55	4 56	Willets Point	75	+0 06	+0 09	−1.1	0.0	0.85
49	Pot Cove, Astoria	40 47	73 56	4 56	Willets Point	75	+0 02	+0 07	−1.4	0.0	0.81
50	Hallets Point Light, Hell Gate	40 47	73 56	4 56	New York	79	+2 49	+2 32	+0.9	0.0	1.20
51	Hell Gate Ferry, Astoria	40 46	73 56	4 56	New York	79	+1 56	+1 35	+0.7	0.0	1.16
52	Blackwells Island Light	40 46	73 56	4 56	New York	79	+1 50	+1 38	+0.9	0.0	1.20
53	East 41st street, New York City	40 45	73 58	4 56	New York	79	+1 37	+1 24	+0.5	0.0	1.11
54	East 27th street, Bellevue Hospital	40 44	73 58	4 56	New York	79	+1 23	+1 16	+0.3	0.0	1.07
55	Brooklyn Navy-Yard	40 42	73 59	4 56	New York	79	+0 40	+0 43	0.0	0.0	1.00
56	Brooklyn Bridge	40 42	74 00	4 56	New York	79	+0 20	+0 22	0.0	0.0	1.00

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	7 32	1 17	7 32a	1 03b	3.1	3.8	2.3	3.3	0.7	0.1	.....	0.7	1.6	1.5	11.5
2	7 33	1 25	7 33a	1 11b	3.0	3.7	2.2	3.2	0.7	0.1	.....	0.7	1.5	1.5	11.0
3	8 49	2 38	8 45a	2 58b	2.7	3.2	2.1	3.1	0.9	0.2	.....	0.9	1.4	1.4	11.0
4	9 09	3 03	9 05a	3 23b	2.7	3.2	2.1	3.1	0.9	0.2	.....	0.9	1.4	1.4	11.0
5	9 18	3 18	9 13a	3 40b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	11.0
6	9 26	3 30	9 21a	3 51b	2.5	2.9	1.9	2.8	0.9	0.2	8 31	0.9	1.2	1.3	11.0
7	9 32	3 41	9 27a	4 01b	2.5	2.9	2.0	2.8	0.9	0.2	8 27	0.9	1.2	1.3	11.0
8	10 07	4 17	10 03a	4 37b	3.1	3.7	2.4	3.5	1.0	0.2	.....	1.0	1.6	1.6	11.0
9	9 31	3 33	9 27a	3 53b	2.7	3.2	2.1	3.1	0.9	0.2	.....	0.9	1.4	1.4	11.0
10	10 29	4 11	10 25a	4 30b	3.6	4.3	2.8	4.1	1.1	0.3	.....	1.1	1.8	1.8	10.5
11	10 39	4 26	10 35a	4 45b	3.6	4.3	2.8	4.1	1.1	0.3	.....	1.1	1.8	1.8	10.5
12	10 55	4 53	10 51a	5 11b	3.3	4.0	2.6	3.7	1.0	0.2	.....	1.0	1.6	1.7	10.5
13	11 12	5 19	11 08a	5 40b	2.9	3.5	2.3	3.3	0.9	0.2	.....	1.0	1.4	1.5	10.5
14	11 40	5 58	11 35a	6 20b	2.5	3.0	2.0	2.7	0.9	0.2	.....	0.9	1.2	1.3	10.5
15	0 13	7 29	0 08b	7 55b	1.9	2.3	1.5	2.3	0.8	0.2	.....	0.8	1.0	1.0	10.5
16	0 53	8 15	0 47b	8 44b	1.5	1.8	1.2	1.8	0.7	0.2	.....	0.7	0.8	0.8	10.0
17	1 48	9 29	1 41b	10 03b	1.1	1.3	0.9	1.4	0.6	0.1	.....	0.6	0.6	0.6	10.5
18	2 21	10 13	2 14b	10 47b	0.9	1.0	0.7	1.1	0.5	0.1	.....	0.5	0.4	0.5	10.5
19	2 50	10 50	2 42b	11 28b	0.8	1.0	0.6	1.0	0.5	0.1	.....	0.5	0.4	0.4	10.5
20	10 46	4 31	10 42a	4 39b	4.5	5.3	3.7	5.2	0.8	0.3	.....	0.8	2.2	2.4	10.5
21	10 54	4 37	10 51a	4 45b	5.4	6.3	4.4	6.1	0.8	0.3	.....	0.9	2.7	2.9	10.0
22	10 58	4 40	10 55a	4 47b	5.6	6.6	4.6	6.3	0.9	0.3	.....	0.9	2.8	3.0	10.0
23	11 02	4 46	10 59a	4 53b	5.6	6.6	4.6	6.3	0.9	0.3	.....	0.9	2.8	3.0	10.0
24	10 58	4 41	10 54a	4 49b	5.7	6.7	4.7	6.4	0.9	0.3	.....	1.0	2.8	3.0	10.0
25	11 08	4 54	11 05a	5 02b	6.0	7.0	4.9	6.7	0.9	0.3	.....	1.0	3.0	3.2	10.0
26	11 06	4 54	11 03a	5 01b	6.6	7.7	5.4	7.3	0.9	0.3	.....	1.0	3.3	3.5	10.0
27	11 09	5 04	11 06a	5 11b	7.2	8.4	5.9	8.0	1.0	0.3	.....	1.1	3.6	3.8	10.0
28	11 08	5 04	11 05a	5 11b	7.1	8.3	5.8	7.9	1.0	0.3	.....	1.1	3.6	3.8	10.0
29	11 06	5 03	11 03a	5 10b	7.0	8.2	5.7	7.8	1.0	0.3	.....	1.1	3.5	3.7	10.0
30	11 19	5 14	11 16a	5 21b	7.1	8.3	5.8	7.9	1.0	0.3	.....	1.1	3.6	3.8	10.0
31	11 05	5 05	11 00a	5 13b	7.2	8.4	5.9	8.0	1.0	0.3	.....	1.1	3.6	3.8	9.5
32	11 03	4 56	10 58a	5 14b	7.0	8.2	5.7	7.8	1.0	0.3	.....	1.1	3.5	3.7	9.5
33	11 04	4 57	10 59a	5 05b	7.1	8.3	5.8	7.9	1.0	0.3	.....	1.1	3.6	3.8	9.5
34	11 05	4 58	11 00a	5 05b	7.1	8.3	5.8	7.9	1.0	0.3	.....	1.1	3.6	3.8	9.5
35	11 06	4 59	11 01a	5 07b	7.4	8.7	6.1	8.3	1.0	0.4	.....	1.1	3.7	3.9	9.5
36	11 04	4 57	10 59a	5 05b	7.3	8.5	6.0	8.2	1.0	0.4	.....	1.1	3.6	3.8	9.5
37	11 06	5 00	11 01a	5 08b	7.5	8.8	6.2	8.4	1.0	0.4	.....	1.1	3.8	4.0	9.5
38	11 13	5 10	11 09a	5 19b	7.6	8.9	6.2	8.5	1.0	0.4	.....	1.1	3.8	4.0	9.0
39	11 07	5 12	11 02a	5 20b	7.4	8.7	6.1	8.3	1.0	0.4	.....	1.1	3.7	3.9	9.0
40	11 09	5 14	11 04a	5 22b	7.3	8.5	6.0	8.2	1.0	0.4	.....	1.1	3.6	3.8	9.0
41	11 12	5 24	11 07a	5 32b	7.0	8.2	5.7	7.8	1.0	0.3	.....	1.1	3.5	3.7	9.0
42	11 17	5 27	11 12a	5 35b	7.1	8.3	5.8	7.9	1.0	0.3	.....	1.1	3.6	3.8	9.0
43	11 21	5 30	11 16a	5 38b	7.1	8.3	5.8	7.9	1.0	0.3	.....	1.1	3.6	3.8	9.0
44	11 40	6 10	11 35a	6 18b	6.5	7.6	5.3	7.2	0.9	0.3	.....	1.0	3.2	3.4	9.0
45	11 27	5 29	11 22a	5 37b	6.9	8.1	5.7	7.6	0.9	0.3	.....	1.0	3.4	3.6	9.0
46	11 20	5 25	11 17a	5 32b	6.8	8.0	5.6	7.5	0.9	0.3	.....	1.0	3.4	3.6	9.0
47	11 17	5 23	11 14a	5 30b	6.5	7.6	5.3	7.2	0.9	0.3	.....	1.0	3.2	3.4	9.0
48	11 14	5 21	11 11a	5 28b	6.2	7.3	5.1	6.9	0.9	0.3	.....	1.0	3.1	3.3	9.0
49	11 10	5 19	11 07a	5 27b	5.9	6.9	4.8	6.6	0.9	0.3	.....	1.0	3.0	2.2	9.0
50	10 53	4 38	10 51a	4 51b	5.3	6.4	4.1	5.7	1.0	0.2	.....	1.1	2.6	2.7	9.0
51	10 00	3 41	9 58a	3 54b	5.1	6.2	4.0	5.5	1.0	0.2	.....	1.1	2.6	2.6	9.0
52	9 54	3 39	9 52a	3 52b	5.3	6.4	4.1	5.7	1.0	0.2	.....	1.1	2.6	2.7	9.0
53	9 41	3 30	9 39a	3 42b	4.9	5.9	3.8	5.3	1.0	0.2	.....	1.0	2.4	2.5	9.0
54	9 27	3 22	9 25a	3 35b	4.7	5.7	3.7	5.1	1.0	0.2	.....	1.0	2.4	2.4	9.0
55	8 44	2 49	8 42a	3 03b	4.4	5.3	3.4	4.7	0.9	0.2	.....	1.0	2.2	2.3	9.0
56	8 24	2 28	8 22a	2 42b	4.4	5.3	3.4	4.7	0.9	0.2	.....	1.0	2.2	2.3	9.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	NEW YORK—continued.										
	Harlem River.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	East 110th street, New York City	40 47	73 56	4 56	New York	79	+2 06	+1 86	+1.1	0.0	1.25
2	High Bridge	40 51	73 56	4 56	New York	79	+2 21	+2 04	+1.6	0.0	1.36
3	Kings Bridge	40 52	73 55	4 56	New York	79	+0 56	+0 59	−0.1	0.0	0.98
	Long Island Sound, south side.										
4	WILLETTS POINT	40 48	73 46	4 55	Willets Point	75	0 00	0 00	0.0	0.0	1.00
5	Hewletts Point	40 50	73 45	4 55	Willets Point	75	−0 01	−0 02	−0.1	0.0	0.99
6	Execution Rocks Light	40 53	73 44	4 55	Willets Point	75	−0 02	−0 04	−0.1	0.0	0.99
7	Glen Cove, Hempstead Bay	40 51	73 39	4 55	Willets Point	75	−0 01	−0 01	−0.1	0.0	0.99
8	Oyster Bay	40 52	73 31	4 54	Willets Point	75	−0 01	−0 18	0.0	0.0	1.00
9	Cold Spring Harbor, Oyster Bay	40 52	73 28	4 54	Willets Point	75	0 00	−0 07	+0.3	0.0	1.04
10	Huntington Harbor	40 54	73 21	4 53	Willets Point	75	−0 03	−0 16	+0.3	0.0	1.04
11	Northport Harbor	40 54	73 21	4 53	Willets Point	75	−0 02	−0 15	0.0	0.0	1.00
12	Nissequogue River	40 54	73 13	4 53	Willets Point	75	−0 05	−0 20	−0.6	0.0	0.92
13	Stony Brook	40 55	73 09	4 53	Willets Point	75	+0 16	+0 05	−1.2	0.0	0.84
14	Stratford Shoal Light	41 04	73 06	4 52	Willets Point	75	−0 09	−0 23	−0.7	0.0	0.90
15	Port Jefferson Entrance	40 58	73 05	4 52	Willets Point	75	−0 08	−0 22	−1.1	0.0	0.85
16	Port Jefferson	40 57	73 04	4 52	Willets Point	75	+0 22	+0 26	−0.7	0.0	0.90
17	Setauket	40 56	73 06	4 52	Willets Point	75	+0 51	+1 04	−0.8	0.0	0.89
18	Conscience Bay	40 57	73 07	4 52	Willets Point	75	+1 01	+1 40	−2.3	0.0	0.69
19	Herod Point	40 57	72 50	4 51	New London	71	+1 32	+1 18	+2.6	0.0	2.00
20	Jacob Point	40 59	72 39	4 51	New London	71	+1 28	+1 14	+2.2	0.0	1.84
21	Duck Pond Point	41 02	72 31	4 50	New London	71	+1 23	+1 09	+1.8	0.0	1.68
22	Horton Point Light	41 05	72 27	4 50	New London	71	+1 20	+1 05	+1.4	0.0	1.52
23	Truman Beach	41 08	72 19	4 49	New London	71	+1 05	+0 48	+1.0	0.0	1.36
24	Oyster Pond Point	41 10	72 14	4 49	New London	71	+0 29	+0 12	+0.1	0.0	1.00
25	Little Gull Island Light	41 12	72 06	4 48	New London	71	0 00	−0 26	+0.1	0.0	1.00
26	West Harbor, Fishers Island	41 16	72 00	4 48	New London	71	+0 05	−0 03	−0.3	0.0	0.84
27	Gardiners Island Light	41 09	72 09	4 49	New London	71	+0 15	+0 06	−0.2	0.0	0.88
28	Orient Harbor	41 08	72 18	4 49	New London	71	+0 45	+0 24	+0.1	0.0	1.00
29	Greenport	41 06	72 21	4 49	New London	71	+0 58	+0 36	+0.1	0.0	1.00
30	Southold Landing	41 04	72 25	4 50	New London	71	+1 48	+1 32	+0.1	0.0	1.00
31	Cutchogue Harbor	41 00	72 27	4 50	New London	71	+2 01	+1 48	−0.1	0.0	0.92
32	Jamesport	40 56	72 34	4 50	New London	71	+2 47	+2 42	0.0	0.0	0.96
33	Sag Harbor	41 00	72 17	4 49	New London	71	+1 13	+1 07	+0.1	0.0	1.00
34	Cedar Island Light	41 02	72 16	4 49	New London	71	+0 42	+0 31	+0.6	0.0	1.20
35	Acabonack Harbor	41 01	72 08	4 49	New London	71	0 00	−0 08	+0.3	0.0	1.08
36	Napeague Harbor	41 00	72 03	4 48	New London	71	−0 21	−0 35	+0.1	0.0	1.00
37	Fort Pond Bay	41 03	71 58	4 48	New London	71	−0 46	−1 00	−0.2	0.0	0.88
38	Montauk Point Light	41 04	71 51	4 47	New London	71	−1 07	−1 28	−0.5	0.0	0.76
	Long Island, south side.										
39	Amagansett Life-Saving Station	40 58	72 07	4 48	New London	71	−1 16	−2 05	−0.4	0.0	0.80
40	Sagaponack	40 55	72 16	4 49	New London	71	−1 25	−1 41	−0.3	0.0	0.84
41	South Hampton Life-Saving Station	40 52	72 23	4 50	New London	71	−1 30	−1 45	−0.1	0.0	0.92
42	Shinnecock Life-Saving Station	40 51	72 28	4 50	New London	71	−1 36	−1 50	+0.1	0.0	1.00
43	Quogue Life-Saving Station	40 48	72 36	4 50	New London	71	−1 42	−1 54	+0.3	0.0	1.08
44	Moriches Life-Saving Station	40 46	72 43	4 51	New London	71	−1 47	−1 57	+0.5	0.0	1.16
45	Bellport Life-Saving Station	40 43	72 56	4 52	New London	71	−1 52	−2 01	+0.7	0.0	1.24
46	Bellport, Great South Bay	40 45	72 56	4 52	New London	71	+1 33	+1 24	−1.3	0.0	0.44
47	Patchogue, Great South Bay	40 45	73 01	4 52	New London	71	+1 16	+1 07	−1.4	0.0	0.40
48	Lone Hill Life-Saving Station	40 40	73 04	4 52	New London	71	−1 57	−2 04	+0.9	0.0	1.32
49	Fire Island Inlet, Great South Bay	40 38	73 14	4 53	New London	71	−2 02	−2 05	−0.6	0.0	0.72
50	Babylon, Great South Bay	40 41	73 19	4 53	New London	71	+0 29	+0 25	−1.2	0.0	0.48
51	Gilgo Inlet, Great South Bay	40 37	73 25	4 54	Sandy Hook	83	−0 07	−0 05	−1.0	0.0	0.78
52	New Inlet, Hempstead Bay	40 35	73 33	4 54	Sandy Hook	83	−0 02	0 00	−0.8	0.0	0.82
53	E. Rockaway Inlet, Hempstead Bay	40 31	73 32	4 54	Sandy Hook	83	+0 04	+0 04	−0.5	0.0	0.89
54	Rockaway Inlet, Jamaica Bay	40 35	73 53	4 56	Sandy Hook	83	+0 12	+0 14	−0.6	0.0	0.87
55	Holland Landing, Jamaica Bay	40 35	73 49	4 55	Sandy Hook	83	+0 47	+0 53	−0.5	0.0	0.89
56	Norton Point, Jamaica Bay	40 38	73 45	4 55	Sandy Hook	83	+0 44	+1 34	−0.8	0.0	0.82
57	Canarsie, Jamaica Bay	40 38	73 53	4 56	Sandy Hook	83	+1 04	+1 12	−0.4	0.0	0.91
58	Coney Island	40 34	73 59	4 56	Sandy Hook	83	+0 05	+0 07	+0.1	0.0	1.02
	Staten Island.										
59	Elm Tree Beacon	40 34	74 06	4 56	Sandy Hook	83	+0 08	+0 12	+0.1	0.0	1.02
60	Great Kills	40 32	74 08	4 57	Sandy Hook	83	+0 07	+0 10	+0.5	0.0	1.11
61	Princess Bay Light	40 30	74 13	4 57	Sandy Hook	83	+0 10	+0 16	+0.7	0.0	1.15
62	Great Beds Light	40 29	74 15	4 57	Sandy Hook	83	+0 12	+0 22	+0.8	0.0	1.17
63	Tottenville, Arthur Kill	40 31	74 15	4 57	Sandy Hook	83	+0 26	+0 37	+1.0	0.0	1.21

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	10 10	3 42	10 08a	3 54b	5.5	6.7	4.3	5.9	1.1	0.2	.....	1.1	2.8	2.8	9.0
2	10 25	4 10	10 23a	4 22b	6.0	7.2	4.7	6.4	1.1	0.2	.....	1.2	3.0	3.1	9.0
3	9 00	3 05	8 58a	3 19b	4.3	5.2	3.4	4.6	0.9	0.2	.....	1.0	2.2	2.2	9.0
4	11 07	5 13	11 02a	5 21b	7.3	8.7	5.8	8.4	1.0	0.6	9 06	1.1	3.6	4.1	9.0
5	11 06	5 11	11 01a	5 19b	7.2	8.4	5.9	8.2	1.0	0.5	.....	1.1	3.6	4.1	9.0
6	11 05	5 09	11 00a	5 17b	7.2	8.4	5.9	8.2	1.0	0.5	.....	1.1	3.6	4.1	9.0
7	11 06	5 12	11 01a	5 20b	7.2	8.4	5.9	8.2	1.0	0.5	.....	1.1	3.6	4.1	9.0
8	11 07	5 06	11 02a	5 14b	7.3	8.5	6.0	8.4	1.0	0.6	.....	1.1	3.6	4.1	9.0
9	11 08	5 07	11 05a	5 13b	7.6	8.9	6.2	8.5	1.0	0.4	.....	1.1	3.8	4.0	9.0
10	11 06	4 59	11 03a	5 05b	7.6	8.9	6.2	8.5	1.0	0.4	.....	1.1	3.8	4.0	9.5
11	11 07	5 00	11 02a	5 07b	7.3	8.5	6.0	8.2	1.0	0.4	.....	1.1	3.6	3.8	9.5
12	11 04	4 55	10 59a	5 02b	6.7	7.8	5.5	7.4	0.9	0.3	.....	1.0	3.4	3.6	9.5
13	11 25	5 20	11 22a	5 27b	6.1	7.1	5.0	6.8	0.9	0.3	.....	1.0	3.0	3.2	9.5
14	11 01	4 53	10 57a	5 00b	6.6	7.7	5.4	7.3	0.9	0.3	.....	1.0	3.3	3.5	10.0
15	11 02	4 54	10 59a	5 11b	6.2	7.3	5.1	6.9	0.9	0.3	.....	1.0	3.1	3.3	10.0
16	11 41	5 46	11 38a	5 53b	6.6	7.7	5.4	7.3	0.9	0.3	.....	1.0	3.3	3.5	10.0
17	12 10	6 24	12 07a	6 31b	6.5	7.6	5.3	7.2	0.9	0.3	.....	1.0	3.2	3.4	10.0
18	12 20	7 00	12 16a	7 08b	5.0	5.8	4.1	5.7	0.8	0.3	.....	0.9	2.5	2.7	10.0
19	10 55	4 45	10 52a	5 00b	5.0	6.0	4.0	5.6	1.2	0.3	.....	1.3	2.5	2.6	10.0
20	10 51	4 41	10 48a	4 57b	4.6	5.5	3.6	5.1	1.2	0.3	.....	1.2	2.3	2.4	10.0
21	10 47	4 37	10 43a	4 55b	4.2	5.0	3.3	4.7	1.1	0.3	.....	1.2	2.1	2.2	10.0
22	10 44	4 33	10 40a	4 51b	3.8	4.6	3.0	4.3	1.1	0.2	.....	1.1	1.9	1.9	10.0
23	10 30	4 17	10 26a	4 35b	3.4	4.1	2.7	3.8	1.0	0.2	.....	1.0	1.7	1.7	10.5
24	9 54	3 41	9 49a	4 03b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	10.5
25	9 26	3 04	9 21a	3 26b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	11.0
26	9 31	3 27	9 26a	3 50b	2.1	2.5	1.7	2.5	0.8	0.2	.....	0.8	1.1	1.1	11.0
27	9 40	3 35	9 35a	3 57b	2.2	2.6	1.7	2.6	0.8	0.2	.....	0.8	1.1	1.1	10.5
28	10 10	3 53	10 05a	4 15b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	10.5
29	10 18	4 05	10 13a	4 27b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	10.5
30	11 12	5 00	11 07a	5 22b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	10.5
31	11 25	5 16	11 20a	5 40b	2.3	2.8	1.8	2.7	0.8	0.2	.....	0.9	1.2	1.2	10.0
32	12 11	6 10	12 06a	6 33b	2.4	2.9	2.0	2.8	0.9	0.2	.....	0.9	1.2	1.2	10.0
33	10 38	4 36	10 33a	5 00b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.2	10.5
34	10 07	4 00	10 03a	4 20b	3.0	3.6	2.4	3.4	1.0	0.2	.....	1.0	1.5	1.5	10.5
35	9 25	3 21	9 21a	3 41b	2.7	3.2	2.1	3.1	0.9	0.2	.....	0.9	1.4	1.4	10.5
36	9 05	2 55	9 00a	3 17b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	10.5
37	8 40	2 30	8 35a	2 52b	2.2	2.6	1.7	2.6	0.8	0.2	.....	0.8	1.1	1.1	10.5
38	8 20	2 03	8 15a	2 29b	1.9	2.3	1.5	2.3	0.8	0.2	.....	0.8	1.0	1.0	10.5
39	8 10	1 25	8 05a	1 49b	2.0	2.4	1.6	2.4	0.8	0.2	.....	0.8	1.0	1.0	10.5
40	8 00	1 48	7 55a	2 11b	2.1	2.5	1.7	2.5	0.8	0.2	.....	0.8	1.0	1.1	10.5
41	7 54	1 43	7 49a	2 04b	2.3	2.8	1.8	2.7	0.8	0.2	.....	0.8	1.2	1.2	10.0
42	7 48	1 38	7 43a	2 00b	2.5	3.0	2.0	2.9	0.9	0.2	.....	0.9	1.2	1.3	10.0
43	7 42	1 34	7 38a	1 54b	2.7	3.2	2.1	3.1	0.9	0.2	.....	0.9	1.4	1.4	10.0
44	7 36	1 30	7 32a	1 51b	2.9	3.5	2.3	3.3	0.9	0.2	.....	1.0	1.4	1.5	10.0
45	7 30	1 25	7 26a	1 45b	3.1	3.7	2.4	3.5	1.0	0.2	.....	1.0	1.6	1.6	10.0
46	10 55	4 50	10 48a	5 24b	1.1	1.3	0.9	1.4	0.6	0.1	.....	0.6	0.6	0.6	10.0
47	10 38	4 33	10 30a	5 10b	1.0	1.2	0.8	1.3	0.6	0.1	.....	0.6	0.5	0.5	9.5
48	7 25	1 22	7 21a	1 40b	3.3	4.0	2.6	3.7	1.0	0.2	.....	1.0	1.6	1.7	9.5
49	7 19	1 20	7 13a	1 47b	1.8	2.2	1.4	2.1	0.7	0.2	.....	0.8	0.9	0.9	9.5
50	9 50	3 50	9 44a	4 20b	1.2	1.4	0.9	1.5	0.6	0.1	.....	0.6	0.6	0.6	9.5
51	7 25	1 20	7 22a	1 34b	3.6	4.4	2.8	4.0	0.9	0.2	.....	0.9	1.8	1.8	9.0
52	7 30	1 25	7 27a	1 38b	3.8	4.6	3.0	4.2	0.9	0.2	.....	0.9	1.9	1.9	9.0
53	7 36	1 29	7 34a	1 41b	4.1	5.0	3.2	4.5	0.9	0.2	.....	0.9	2.0	2.1	9.0
54	7 42	1 37	7 40a	1 49b	4.0	4.8	3.1	4.4	0.9	0.2	.....	0.9	2.0	2.0	8.5
55	8 18	2 17	8 16a	2 29b	4.1	5.0	3.2	4.5	0.9	0.2	.....	0.9	2.0	2.1	8.5
56	8 15	2 58	8 12a	3 11b	3.8	4.6	3.0	4.2	0.9	0.2	.....	0.9	1.9	1.9	9.0
57	8 34	2 35	8 32a	2 47b	4.2	5.1	3.3	4.6	0.9	0.2	.....	0.9	2.1	2.1	9.0
58	7 35	1 30	7 33a	1 42b	4.7	5.7	3.7	5.1	1.0	0.2	.....	1.0	2.4	2.4	8.5
59	7 38	1 35	7 36a	1 47b	4.7	5.7	3.7	5.1	1.0	0.2	.....	1.0	2.4	2.4	8.5
60	7 36	1 32	7 34a	1 43b	5.1	6.2	4.0	5.5	1.0	0.2	.....	1.0	2.6	2.6	8.5
61	7 39	1 38	7 37a	1 50b	5.3	6.4	4.1	5.7	1.0	0.2	.....	1.1	2.6	2.7	8.5
62	7 41	1 44	7 39a	1 55b	5.4	6.5	4.2	5.8	1.0	0.2	.....	1.1	2.7	2.7	8.5
63	7 55	1 59	7 53a	2 10b	5.6	6.8	4.4	6.0	1.1	0.2	.....	1.1	2.8	2.8	8.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	NEW YORK—continued.										
	Staten Island—Continued.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Rossville, Arthur Kill	40 33	74 13	4 57	Sandy Hook	83	+0 54	+1 15	+0.7	0.0	1.15
2	Port Richmond, Kill Van Kull	40 38	74 09	4 57	New York	79	+0 08	+0 10	+0.4	0.0	1.09
3	New Brighton, Kill Van Kull	40 39	74 06	4 56	New York	79	−0 08	−0 16	+0.7	0.0	1.02
4	Fort Tompkins Light, The Narrows	40 36	74 03	4 56	New York	79	−0 23	−0 28	+0.1	0.0	1.19
	New York Harbor.										
5	Bath, Gravesend Bay	40 36	74 00	4 56	New York	79	−0 36	− 0 36	+0.5	0.0	1.11
6	Fort Hamilton, The Narrows	40 36	74 02	4 56	New York	79	−0 23	− 0 28	+0.1	0.0	1.02
7	Bay Ridge	40 38	74 02	4 56	New York	79	−0 15	− 0 19	+0.1	0.0	1.02
8	Gowanus Bay	40 40	74 01	4 56	New York	79	−0 08	− 0 10	0.0	0.0	1.00
9	NEW YORK, Governors Island	40 42	74 01	4 56	New York	79	0 00	0 00	0.0	0.0	1.00
	NEW YORK AND NEW JERSEY.										
	Hudson River.										
10	New York, The Battery	40 42	74 01	4 56	New York	79	+0 05	+ 0 05	0.0	0.0	1.00
11	Jersey City Ferry, New Jersey	40 43	74 02	4 56	New York	79	+0 08	+ 0 12	0.0	0.0	1.00
12	Pavonia Ferry, 23d st., New York	40 43	74 01	4 56	New York	79	+0 09	+ 0 13	0.0	0.0	1.00
13	Weehawken, N. J	40 47	74 00	4 56	New York	79	+0 20	+ 0 25	−0.2	0.0	0.95
14	New York, West 96th street	40 48	73 58	4 56	New York	79	+0 26	+ 0 31	−0.2	0.0	0.95
15	Edgewater, N. J	40 49	73 59	4 56	New York	79	+0 34	+ 0 39	−0.2	0.0	0.95
16	New York, West 131st street	40 49	73 58	4 56	New York	79	+0 35	+ 0 40	−0.2	0.0	0.95
17	Fort Lee Pier South, N. J	40 51	73 58	4 56	New York	79	+0 37	+ 0 43	−0.3	0.0	0.93
18	Fort Washington Point, N. Y	40 51	73 57	4 56	New York	79	+0 38	+ 0 44	−0.3	0.0	0.93
19	Tubby Hook, N. Y	40 52	73 56	4 56	New York	79	+0 39	+ 0 45	−0.4	0.0	0.91
20	Spuyten Duyvil, N. Y	40 53	73 55	4 56	New York	79	+0 41	+ 0 47	−0.4	0.0	0.91
21	Huylers Landing, N. J	40 56	73 55	4 56	New York	79	+0 56	+ 1 02	−0.5	0.0	0.88
22	Yonkers, N. Y	40 56	73 54	4 56	New York	79	+0 57	+ 1 04	−0.6	0.0	0.86
	NEW YORK—continued.										
	Hudson River.										
23	Dobbs Ferry	41 01	73 53	4 56	New York	79	+1 14	+ 1 21	−0.8	0.0	0.82
24	Ossining or Sing Sing	41 10	73 52	4 55	New York	79	+1 49	+ 2 00	−1.1	0.0	0.75
25	Verplanck Point	41 15	73 58	4 56	New York	79	+2 19	+ 2 33	−1.2	0.0	0.73
26	Iona or Round Island	41 18	73 58	4 56	New York	79	+2 30	+ 2 45	−1.2	0.0	0.73
27	West Point Light	41 24	73 57	4 56	New York	79	+2 50	+ 3 06	−1.1	0.0	0.75
28	Fishkill Landing	41 30	73 59	4 56	New York	79	+3 15	+ 3 33	−1.1	0.0	0.75
29	Poughkeepsie	41 43	73 56	4 56	New York	79	+3 54	+ 4 15	−1.2	0.0	0.73
30	Esopus Island	41 49	73 57	4 56	New York	79	+4 17	+ 4 39	−1.2	0.0	0.73
31	Rondout	41 55	73 59	4 56	New York	79	+4 39	+ 5 03	−1.1	0.0	0.75
32	Barrytown	42 00	73 56	4 56	New York	79	+5 07	+ 5 36	−1.1	0.0	0.75
33	Tivoli	42 03	73 55	4 56	New York	79	+5 24	+ 5 56	−1.0	0.0	0.77
34	Catskill	42 13	73 51	4 55	New York	79	+6 25	+ 7 09	−1.2	0.0	0.73
35	Stuyvesant	42 23	73 47	4 55	New York	79	+7 33	+ 8 36	−1.4	0.0	0.68
36	Castleton	42 32	73 45	4 55	New York	79	+8 33	+ 9 50	−1.7	0.0	0.61
37	Albany	42 37	73 45	4 55	New York	79	+9 33	+11 04	−2.1	0.0	0.52
	NEW JERSEY—continued.										
	Newark Bay.										
38	Shooters Island, N. Y	40 39	74 10	4 57	New York	79	+0 17	+ 0 23	+0.2	0.0	1.05
39	Elizabethport	40 39	74 11	4 57	New York	79	+0 23	+ 0 36	+0.2	0.0	1.05
40	Passaic Light	40 42	74 08	4 57	New York	79	+0 38	+ 0 54	+0.3	0.0	1.07
41	Newark, Passaic River	40 44	74 10	4 57	New York	79	+0 58	+ 1 08	+0.6	0.0	1.14
42	Passaic, Passaic River	40 52	74 07	4 56	New York	79	+1 41	+ 2 04	−1.1	0.0	0.75
43	Little Ferry, Hackensack River	40 51	74 02	4 56	New York	79	+1 26	+ 1 47	+0.2	0.0	1.05
44	Hackensack, Hackensack River	40 53	74 02	4 56	New York	79	+1 36	+ 1 59	+0.1	0.0	1.02
	Raritan Bay, etc.										
45	New Brunswick	40 29	74 26	4 58	Sandy Hook	83	+0 54	+ 2 02	+2.2	0.0	1.48
46	South ALLOY	40 29	74 16	4 57	Sandy Hook	83	+0 13	+ 0 20	+0.8	0.0	1.17
47	Keyport	40 27	74 12	4 57	Sandy Hook	83	+0 10	+ 0 18	+1.0	0.0	1.22
48	Port Monmouth	40 26	74 05	4 56	Sandy Hook	83	+0 05	+ 0 08	+0.2	0.0	1.04
49	SANDY HOOK, The Horseshoe	40 27	74 00	4 56	Sandy Hook	83	0 00	0 00	0.0	0.0	1.00
	Outer coast.										
50	Seabright	40 22	73 58	4 56	Sandy Hook	83	−0 05	− 0 11	−0.6	0.0	0.87
51	Long Branch	40 18	73 59	4 56	Sandy Hook	83	−0 06	− 0 12	−0.2	0.0	0.95
52	Asbury Park	40 13	74 00	4 56	Sandy Hook	83	−0 07	− 0 13	−0.4	0.0	0.91
53	Seagirt	40 08	74 02	4 56	Sandy Hook	83	−0 08	− 0 14	−0.6	0.0	0.87
54	Barnegat Inlet	39 46	74 06	4 56	New London	71	−1 28	− 1 39	−0.2	0.0	0.90

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	8 23	2 37	8 21a	2 50b	5.3	6.4	4.1	5.7	1.0	0.2	.....	1.1	2.6	2.7	8.5
2	8 11	2 15	8 09a	2 28b	4.8	5.8	3.7	5.2	1.0	0.2	.....	1.0	2.4	2.5	8.5
3	7 56	1 50	7 54a	2 03b	5.1	6.2	4.0	5.5	1.0	0.2	.....	1.1	2.6	2.6	8.5
4	7 41	1 38	7 39a	1 51b	4.5	5.4	3.5	4.9	1.0	0.2	.....	1.0	2.2	2.3	8.5
5	7 28	1 30	7 26a	1 42b	4.9	5.9	3.8	5.3	1.0	0.2	.....	1.0	2.4	2.5	8.5
6	7 41	1 38	7 39a	1 51b	4.5	5.5	3.7	4.9	1.0	0.2	.....	1.0	2.2	2.3	8.5
7	7 49	1 47	7 47a	2 00b	4.5	5.4	3.5	4.9	1.0	0.2	.....	1.0	2.2	2.3	8.5
8	7 56	1 56	7 54a	2 10b	4.4	5.3	3.4	4.7	0.9	0.2	.....	1.0	2.2	2.3	8.5
9	8 04	2 06	8 02a	2 19b	4.4	5.3	3.4	4.8	0.9	0.2	7 09	1.0	2.2	2.3	9.0
10	8 09	2 11	8 07a	2 25b	4.4	5.3	3.4	4.7	0.9	0.2	.....	1.0	2.2	2.3	9.0
11	8 12	2 18	8 10a	2 32b	4.4	5.3	3.4	4.7	0.9	0.2	.....	1.0	2.2	2.3	9.0
12	8 13	2 19	8 11a	2 33b	4.4	5.3	3.4	4.7	0.9	0.2	.....	1.0	2.2	2.3	9.0
13	8 24	2 31	8 22a	2 45b	4.2	5.1	3.3	4.5	0.9	0.2	.....	1.0	2.1	2.2	9.0
14	8 30	2 37	8 28a	2 51b	4.2	5.1	3.3	4.5	0.9	0.2	.....	1.0	2.1	2.2	9.0
15	8 38	2 45	8 36a	2 59b	4.2	5.1	3.3	4.5	0.9	0.2	.....	1.0	2.1	2.2	9.0
16	8 39	2 46	8 37a	3 00b	4.2	5.1	3.3	4.5	0.9	0.2	.....	1.0	2.1	2.2	9.0
17	8 41	2 49	8 39a	3 02b	4.1	5.0	3.2	4.4	0.9	0.2	.....	0.9	2.0	2.1	9.0
18	8 42	2 50	8 40a	3 03b	4.1	5.0	3.2	4.4	0.9	0.2	.....	0.9	2.0	2.1	9.0
19	8 43	2 51	8 41a	3 04b	4.0	4.8	3.1	4.3	0.9	0.2	.....	0.9	2.0	2.1	9.0
20	8 45	2 53	8 43a	3 06b	4.0	4.8	3.1	4.3	0.9	0.2	.....	0.9	2.0	2.1	9.0
21	9 00	3 08	8 58a	3 22b	3.9	4.7	3.0	4.2	0.9	0.2	.....	0.9	2.0	2.0	9.0
22	9 01	3 10	8 59a	3 24b	3.8	4.6	3.0	4.1	0.9	0.2	.....	0.9	1.9	2.0	9.0
23	9 18	3 27	9 16a	3 42b	3.6	4.4	2.8	3.9	0.9	0.2	.....	0.9	1.8	1.9	9.5
24	9 54	4 07	9 52a	4 23b	3.3	4.0	2.6	3.6	0.8	0.2	.....	0.9	1.6	1.7	9.5
25	10 23	4 39	10 21a	4 56b	3.2	3.9	2.5	3.5	0.8	0.2	.....	0.8	1.6	1.7	9.0
26	10 34	4 51	10 32a	5 08b	3.2	3.9	2.5	3.5	0.8	0.2	.....	0.8	1.6	1.7	9.0
27	10 54	5 12	10 52a	5 29b	3.3	4.0	2.6	3.6	0.8	0.2	.....	0.9	1.6	1.7	9.5
28	11 19	5 39	11 17a	5 55b	3.3	4.0	2.6	3.6	0.8	0.2	.....	0.9	1.6	1.7	9.0
29	11 58	6 21	11 56a	6 36b	3.2	3.9	2.5	3.5	0.8	0.2	.....	0.8	1.6	1.7	9.5
30	12 21	6 45	12 19a	7 00b	3.2	3.9	2.5	3.5	0.8	0.2	.....	0.8	1.6	1.7	9.5
31	0 18	7 09	0 16b	7 25b	3.3	4.0	2.6	3.6	0.8	0.2	.....	0.9	1.6	1.7	10.0
32	0 46	7 42	0 44b	7 58b	3.3	4.0	2.6	3.6	0.8	0.2	.....	0.9	1.6	1.7	10.0
33	1 03	8 02	1 01b	8 18b	3.4	4.1	2.7	3.7	0.8	0.2	.....	0.9	1.7	1.8	10.0
34	2 03	9 16	2 01b	9 31b	3.2	3.9	2.5	3.5	0.8	0.2	.....	0.8	1.6	1.7	10.0
35	3 13	10 43	3 11b	10 59b	3.0	3.6	2.3	3.3	0.8	0.2	.....	0.8	1.5	1.6	10.0
36	4 13	11 57	4 11b	12 15b	2.7	3.3	2.1	3.0	0.7	0.1	.....	0.8	1.4	1.4	10.5
37	5 13	0 46	5 11b	1 04a	2.3	2.8	1.8	2.6	0.7	0.1	.....	0.7	1.2	1.2	10.5
38	8 20	2 28	8 09a	2 19b	4.6	5.4	3.9	5.5	0.9	0.3	.....	1.3	2.3	2.4	9.0
39	8 26	2 41	8 24a	2 53b	4.6	5.6	3.6	5.0	1.0	0.2	.....	1.0	2.3	2.3	8.5
40	8 41	2 59	8 39a	3 11b	4.7	5.7	3.7	5.1	1.0	0.2	.....	1.0	2.4	2.4	8.5
41	9 01	3 13	8 59a	3 24b	5.0	6.1	3.9	5.4	1.0	0.2	.....	1.0	2.5	2.5	8.5
42	9 45	4 10	9 43a	4 22b	3.3	4.0	2.6	3.6	0.8	0.2	.....	0.9	1.6	1.7	8.5
43	9 30	3 53	9 28a	4 05b	4.6	5.6	3.6	5.0	1.0	0.2	.....	1.0	2.3	2.3	8.5
44	9 40	4 05	9 38a	4 17b	4.5	5.5	3.5	4.9	1.0	0.2	.....	1.0	2.2	2.3	8.5
45	8 22	3 23	8 20a	3 33b	6.8	8.2	5.3	7.0	1.2	0.2	.....	1.2	3.4	3.4	8.5
46	7 42	1 42	7 40a	1 53b	5.4	6.5	4.2	5.8	1.0	0.2	.....	1.1	2.7	2.7	8.5
47	7 39	1 40	7 37a	1 51b	5.6	6.8	4.4	6.0	1.1	0.2	.....	1.1	2.8	2.8	8.5
48	7 35	1 31	7 33a	1 43b	4.8	5.8	3.7	5.2	1.0	0.2	.....	1.0	2.4	2.4	8.5
49	7 30	1 23	7 28a	1 36b	4.6	5.6	3.6	5.0	1.0	0.2	6 48	1.0	2.3	2.3	8.5
50	7 25	1 12	7 23a	1 25b	4.0	4.8	3.1	4.4	0.9	0.2	.....	1.0	2.0	2.0	8.5
51	7 24	1 11	7 22a	1 24b	4.4	5.3	3.4	4.8	1.0	0.2	.....	1.0	2.2	2.2	8.5
52	7 23	1 10	7 21a	1 23b	4.2	5.1	3.3	4.6	0.9	0.2	.....	0.9	2.1	2.1	8.0
53	7 22	1 09	7 20a	1 22b	4.0	4.8	3.1	4.4	0.9	0.2	.....	1.0	2.0	2.0	8.0
54	7 50	1 43	7 46a	2 01b	2.2	2.7	1.7	2.5	0.7	0.1	.....	0.7	1.1	1.1	7.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	NEW JERSEY—continued.										
	Outer coast—Continued.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Kettle Creek, Barnegat Bay	40 01	74 07	4 56	New London	71	+3 21	+3 23	−1.8	0.0	0.24
2	Toms River, Barnegat Bay	39 56	74 10	4 57	New London	71	+1 30	+1 31	−1.7	0.0	0.28
3	Cedar Creek, Barnegat Bay	39 52	74 08	4 57	New London	71	+0 01	−0 07	−1.4	0.0	0.40
4	Barnegat, Barnegat Bay	39 45	74 11	4 57	New London	71	+0 15	+0 07	−1.6	0.0	0.32
5	New Inlet	39 29	74 18	4 57	New London	71	−1 29	−1 39	+1.1	0.0	1.40
6	Little Egg Harbor	39 35	74 18	4 57	New London	71	+0 08	−0 01	−0.1	0.0	0.92
7	Great Bay	39 30	74 23	4 58	New London	71	−0 47	−0 54	+0.4	0.0	1.12
8	Atlantic City	39 22	74 25	4 58	Sandy Hook	83	+0 19	+0 20	−0.4	0.0	0.91
9	Absecon Bay	39 24	74 29	4 58	Sandy Hook	83	+2 31	+2 36	−0.7	0.0	0.85
10	Great Egg Inlet	39 18	74 33	4 58	Sandy Hook	83	+0 15	+0 16	−0.3	0.0	0.93
11	Corson Inlet	39 12	74 39	4 59	Sandy Hook	83	+0 13	+0 14	−0.3	0.0	0.93
12	Sea Isle City	39 09	74 41	4 59	Sandy Hook	83	+0 11	+0 12	−0.4	0.0	0.91
13	Townsend Inlet	39 07	74 43	4 59	Sandy Hook	83	+0 10	+0 11	−0.4	0.0	0.91
14	Hereford Inlet	39 00	74 47	4 59	Sandy Hook	83	+0 07	+0 08	−0.3	0.0	0.93
15	Sewells Point, Cold Spring Inlet	38 57	74 52	4 59	Sandy Hook	83	+0 09	+0 09	−0.2	0.0	0.95
16	Cape May City	38 56	74 55	5 00	Sandy Hook	83	+0 31	+0 19	−0.1	0.0	0.98
	NEW JERSEY, DELAWARE, AND PENNSYLVANIA.										
	Delaware Bay.										
17	Cape May Light, N. J	38 56	74 58	5 00	Sandy Hook	83	+0 50	+0 28	0.0	0.0	1.00
18	Cape Henlopen Light, Del	38 47	75 05	5 00	Sandy Hook	83	+0 51	+0 31	−0.1	0.0	0.98
19	Delaware B'kwater, east end, Del	38 48	75 06	5 00	Sandy Hook	83	+0 50	+0 32	−0.2	0.0	0.95
20	Lewes, Del	38 47	75 08	5 01	Sandy Hook	83	+0 55	+0 38	−0.3	0.0	0.93
21	Slaughter Creek Entrance, Del	38 52	75 15	5 01	Sandy Hook	83	+1 02	+0 46	−0.2	0.0	0.95
22	Mispillion Creek Light, Del	38 57	75 19	5 01	Sandy Hook	83	+1 14	+1 16	0.0	0.0	1.00
23	Brandywine Shoal Light, Del	38 59	75 07	5 00	Sandy Hook	83	+1 04	+0 59	−0.1	0.0	0.98
24	Fourteen-Foot Bank Light, Del	39 03	75 11	5 01	Sandy Hook	83	+1 17	+1 12	+0.1	0.0	1.02
25	Marcys Landing, N. J	39 02	74 56	5 00	Sandy Hook	83	+1 09	+0 56	+0.5	0.0	1.11
26	Maurice River Lt., East Pt., N. J	39 12	75 02	5 00	Sandy Hook	83	+1 34	+1 39	+1.1	0.0	1.24
27	Port Norris, Maurice River, N. J	39 14	75 02	5 00	Philadelphia	87	−4 34	−5 29	+0.4	0.0	1.06
28	Mauricetown, Maurice River, N. J	39 17	74 58	5 00	Philadelphia	87	−3 49	−4 19	0.0	0.0	0.98
29	Millville, Maurice River, N. J	39 24	75 02	5 00	Philadelphia	87	−2 24	−2 41	−0.5	0.0	0.89
30	Egg Island Light, N. J	39 11	75 08	5 01	Philadelphia	87	−4 58	−6 08	+0.8	0.0	1.13
31	Cross Ledge Light, N. J	39 10	75 14	5 01	Philadelphia	87	−4 55	−6 06	+0.4	0.0	1.04
32	Murderkill Creek Entrance, Del	39 03	75 24	5 02	Philadelphia	87	−4 58	−6 02	0.0	0.0	1.00
33	Frederica, Murderkill Creek, Del	39 01	75 26	5 02	Philadelphia	87	−3 57	−4 37	−2.5	0.0	0.51
34	Lebanon, St. Jones Creek, Del	39 06	75 28	5 02	Philadelphia	87	−3 52	−4 27	−2.8	0.0	0.47
35	Dover, St. Jones Creek, Del	39 09	75 30	5 02	Philadelphia	87	−2 52	−3 07	−4.2	0.0	0.19
36	Mahon River Light, Del	39 11	75 24	5 02	Philadelphia	87	−4 44	−5 47	+0.6	0.0	1.09
37	Fortescue Beach, N. J	39 14	75 10	5 01	Philadelphia	87	−4 48	−5 35	+0.7	0.0	1.11
38	Dona Landing, Dona River, Del	39 13	75 26	5 02	Philadelphia	87	−4 24	−4 54	−0.4	0.0	0.91
39	Leipsic River Entrance, Del	39 15	75 24	5 02	Philadelphia	87	−4 28	−5 13	+0.8	0.0	1.13
40	Leipsic, Del	39 15	75 29	5 02	Philadelphia	87	−3 22	−3 42	−2.2	0.0	0.57
41	Ben Davis Point, N. J	39 17	75 17	5 01	Philadelphia	87	−4 28	−5 13	+0.8	0.0	1.15
42	Ship John Shoal Light, N. J	39 18	75 23	5 02	Philadelphia	87	−4 23	−5 07	+0.8	0.0	1.13
	Delaware River.										
43	Sea Breeze, N. J	39 19	75 19	5 01	Philadelphia	87	−4 23	−5 07	+1.0	0.0	1.17
44	Cohansey Light, N. J	39 20	75 22	5 01	Philadelphia	87	−4 17	−5 00	+1.1	0.0	1.19
45	Greenwich, Cohansey Creek, N. J	39 23	75 19	5 01	Philadelphia	87	−3 38	−4 13	+0.6	0.0	1.11
46	Bridgeton, Cohansey Creek, N. J	39 26	75 14	5 01	Philadelphia	87	−2 33	−2 48	+1.6	0.0	1.30
47	Bombay Hook Point, Del	39 19	75 26	5 02	Philadelphia	87	−4 11	−4 58	+1.0	0.0	1.17
48	Bombay Hook Light, Del	39 22	75 31	5 02	Philadelphia	87	−3 52	−4 27	+0.8	0.0	1.15
49	Liston Point, Del	39 25	75 32	5 02	Philadelphia	87	−3 37	−4 12	+0.8	0.0	1.15
50	Stony Point, N. J	39 27	75 31	5 02	Philadelphia	87	−3 26	−4 00	+1.0	0.0	1.17
51	Reedy Island Quarantine, Del	39 31	75 34	5 02	Philadelphia	87	−3 05	−3 38	+1.0	0.0	1.17
52	Salem, Salem Creek, N. J	39 34	75 28	5 02	Philadelphia	87	−2 47	−2 58	+1.2	0.0	1.21
53	Delaware City, Del	39 35	75 35	5 02	Philadelphia	87	−2 35	−3 07	+1.1	0.0	1.19
54	New Castle, Del	39 39	75 34	5 02	Philadelphia	87	−2 14	−2 46	+1.2	0.0	1.21
55	Deep Water Point, N. J	39 42	75 31	5 02	Philadelphia	87	−2 00	−2 32	+1.2	0.0	1.23
56	Christiana Light, Del	39 43	75 31	5 02	Philadelphia	87	−1 59	−2 30	+1.1	0.0	1.19
57	Wilmington, Del	39 44	75 32	5 02	Philadelphia	87	−1 52	−2 17	+0.6	0.0	1.09
58	Edgemoor, Cherry Island Lt., Del	39 45	75 30	5 02	Philadelphia	87	−1 55	−2 24	+0.8	0.0	1.15
59	Marcus Hook, Pa	39 49	75 25	5 02	Philadelphia	87	−1 30	−1 57	+1.0	0.0	1.17
60	Chester, Pa	39 50	75 22	5 01	Philadelphia	87	−1 22	−1 48	+1.1	0.0	1.19
61	Billingsport, N. J	39 51	75 15	5 01	Philadelphia	87	−0 52	−1 07	+0.8	0.0	1.13
62	Fort Mifflin, Pa	39 52	75 13	5 01	Philadelphia	87	−0 41	−0 58	+0.6	0.0	1.09

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	0 14	6 45	0 07b	7 26b	0.6	0.7	0.5	0.8	0.3	0.1	.....	0.4	0.3	0.3	8.0
2	10 47	4 52	10 41a	5 27b	0.7	0.9	0.6	0.9	0.4	0.1	.....	0.4	0.4	0.4	8.0
3	9 18	3 14	9 12a	3 44b	1.0	1.2	0.8	1.2	0.5	0.1	.....	0.5	0.5	0.5	8.0
4	9 32	3 28	9 26a	3 58b	0.8	1.0	0.6	1.0	0.4	0.1	.....	0.4	0.4	0.4	7.5
5	7 48	1 42	7 45a	1 57b	3.5	4.2	2.7	3.8	0.8	0.1	.....	0.9	1.7	1.8	7.5
6	9 20	3 20	9 17a	3 37b	2.3	2.8	1.8	2.6	0.7	0.1	.....	0.7	1.2	1.2	7.5
7	8 29	2 26	8 26a	2 42b	2.8	3.4	2.2	3.1	0.8	0.1	.....	0.8	1.4	1.4	7.0
8	7 47	1 41	7 44a	1 54b	4.2	5.1	3.3	4.6	0.9	0.2	.....	1.0	2.1	2.1	7.0
9	9 59	3 57	9 56a	4 10b	3.9	4.7	3.0	4.3	0.9	0.2	.....	0.9	2.0	2.0	7.0
10	7 43	1 37	7 40a	1 50b	4.3	5.2	3.4	4.7	1.0	0.2	.....	1.0	2.1	2.2	7.0
11	7 40	1 34	7 37a	1 48b	4.3	5.2	3.4	4.7	1.0	0.2	.....	1.0	2.2	2.2	6.5
12	7 38	1 32	7 35a	1 47b	4.2	5.1	3.3	4.6	0.9	0.2	.....	1.0	2.1	2.1	6.5
13	7 37	1 31	7 34a	1 46b	4.2	5.1	3.3	4.6	0.9	0.2	.....	1.0	2.1	2.1	6.5
14	7 34	1 28	7 31a	1 42b	4.3	5.2	3.4	4.7	1.0	0.2	.....	1.0	2.2	2.2	6.5
15	7 36	1 29	7 33a	1 43b	4.4	5.3	3.4	4.8	1.0	0.2	.....	1.0	2.2	2.2	6.5
16	7 57	1 38	7 55a	1 51b	4.5	5.4	3.5	4.9	1.0	0.2	.....	1.0	2.2	2.2	6.5
17	8 16	1 47	8 14a	2 00b	4.6	5.6	3.6	5.0	1.0	0.2	.....	1.0	2.3	2.3	6.5
18	8 17	1 50	8 15a	2 03b	4.5	5.4	3.5	4.9	1.0	0.2	.....	1.0	2.2	2.2	6.0
19	8 16	1 51	8 13a	2 05b	4.4	5.3	3.4	4.8	1.0	0.2	.....	1.0	2.2	2.2	6.0
20	8 20	1 56	8 17a	2 10b	4.3	5.2	3.4	4.7	1.0	0.2	.....	1.0	2.2	2.2	6.0
21	8 27	2 04	8 24a	2 18b	4.4	5.3	3.4	4.8	1.0	0.2	.....	1.0	2.2	2.2	6.0
22	8 39	2 34	8 37a	2 47b	4.6	5.6	3.6	5.0	1.0	0.2	.....	1.0	2.3	2.3	6.0
23	8 30	2 18	8 28a	2 31b	4.5	5.4	3.5	4.9	1.0	0.2	.....	1.0	2.2	2.2	6.0
24	8 42	2 30	8 40a	2 43b	4.7	5.7	3.7	5.1	1.0	0.2	.....	1.0	2.4	2.4	6.0
25	8 35	2 15	8 33a	2 28b	5.1	6.2	4.0	5.5	1.0	0.2	.....	1.1	2.6	2.6	6.5
26	9 00	2 58	8 58a	3 10b	5.7	6.9	4.4	6.1	1.1	0.2	.....	1.1	2.8	2.8	6.5
27	9 20	3 30	9 21a	3 18a	5.6	6.4	4.8	6.0	0.9	0.1	.....	1.2	2.8	2.7	6.5
28	10 05	4 40	10 06a	3 27a	5.2	6.0	4.4	5.6	0.9	0.1	.....	1.2	2.6	2.5	6.5
29	11 30	6 18	11 31a	6 05a	4.7	5.4	4.0	5.1	0.9	0.1	.....	1.1	2.4	2.3	6.5
30	8 55	2 50	8 56a	2 38a	6.0	6.9	5.1	6.4	1.0	0.1	.....	1.2	3.0	2.9	6.5
31	8 58	2 52	8 59a	2 40a	5.5	6.7	4.9	6.2	1.0	0.1	.....	1.2	2.9	2.8	6.5
32	8 54	2 55	8 55a	2 42a	5.3	6.1	4.5	5.7	0.9	0.1	.....	1.2	2.6	2.5	6.0
33	9 55	4 20	9 56a	4 03a	2.7	3.1	2.3	3:0	0.7	0.1	.....	0.8	1.4	1.3	6.0
34	10 00	4 30	10 01a	4 11a	2.5	2.9	2.1	2.8	0.6	0.1	.....	0.8	1.2	1.1	6.0
35	11 00	5 50	11 02a	5 21a	1.0	1.2	0.8	1.2	0.4	0.0	.....	0.5	0.5	0.4	6.0
36	9 08	3 10	9 09a	2 58a	5.8	6.7	4.9	6.2	1.0	0.1	.....	1.2	2.9	2.8	6.0
37	9 05	3 23	9 06a	3 11a	5.9	6.8	5.0	6.3	1.0	0.1	.....	1.2	3.0	2.9	6.5
38	9 28	4 03	9 29a	3 50a	4.8	5.5	4.1	5.2	0.9	0.1	.....	1.1	2.4	2.3	6.0
39	9 24	3 44	9 25a	3 32a	6.0	6.9	5.1	6.4	1.0	0.1	.....	1.2	3.0	2.9	6.0
40	10 30	5 15	10 31a	4 58a	3.0	3.4	2.6	3.3	0.7	0.1	.....	0.9	1.5	1.4	6.0
41	9 25	3 45	9 26a	3 33a	6.1	7.0	5.2	6.5	1.0	0.1	.....	1.3	3.0	2.9	6.5
42	9 29	3 50	9 30a	3 38a	6.0	6.9	5.1	6.4	1.0	0.1	.....	1.2	3.0	2.9	6.5
43	9 30	3 51	9 31a	3 39a	6.2	7.1	5.3	6.6	1.0	0.1	.....	1.3	3.1	3.0	6.5
44	9 36	3 58	9 37a	3 46a	6.3	7.2	5.4	6.7	1.0	0.1	.....	1.3	3.2	3.1	6.5
45	10 15	4 45	10 16a	3 32a	5.9	6.8	5.0	6.3	1.0	0.1	.....	1.2	2.9	2.9	6.5
46	11 20	6 10	11 21a	5 54a	6.9	8.0	5.8	7.3	1.1	0.1	.....	1.3	3.4	3.2	6.5
47	9 41	4 04	9 42a	3 52a	6.2	7.1	5.3	6.6	1.0	0.1	.....	1.3	3.1	3.0	6.0
48	10 00	4 30	10 01a	4 18a	6.1	7.0	5.2	6.5	1.0	0.1	.....	1.3	3.0	2.9	6.0
49	10 15	4 45	10 16a	4 33a	6.1	7.0	5.2	6.6	1.0	0.1	.....	1.3	3.0	3.0	6.0
50	10 26	4 57	10 27a	4 45a	6.2	7.1	5.3	6.7	1.0	0.1	.....	1.3	3.1	3.1	6.0
51	10 47	5 19	10 48a	5 07a	6.2	7.2	5.4	6.8	1.0	0.1	.....	1.3	3.1	2.8	6.0
52	11 05	6 04	11 06a	5 52a	6.4	7.4	5.4	6.8	1.0	0.1	.....	1.3	3.2	3.1	6.0
53	11 17	5 50	11 18a	5 38a	6.3	7.2	5.4	6.7	1.0	0.1	.....	1.3	3.2	3.1	6.0
54	11 38	6 11	11 39a	5 59a	6.4	7.4	5.4	6.8	1.0	0.1	.....	1.3	3.2	3.1	6.5
55	11 52	6 25	11 53a	6 13a	6.5	7.5	5.5	6.9	1.0	0.1	.....	1.3	3.2	3.1	6.5
56	11 53	6 27	11 54a	6 15a	6.3	7.2	5.4	6.7	1.0	0.1	.....	1.3	3.2	3.1	6.5
57	12 00	6 40	12 01a	6 28a	5.8	6.7	4.9	6.2	1.0	0.1	.....	1.2	2.9	2.8	6.5
58	11 57	6 33	11 58a	6 21a	6.1	6.8	5.2	6.5	1.0	0.1	.....	1.3	3.0	2.9	6.5
59	12 22	7 00	12 23a	6 48a	6.2	6.9	5.3	6.6	1.0	0.1	.....	1.3	3.1	3.0	6.5
60	0 06	7 10	0 07b	6 58a	6.3	7.0	5.4	6.7	1.0	0.1	.....	1.3	3.2	3.1	7.0
61	0 36	7 51	0 37b	7 40a	6.0	6.7	5.3	6.6	1.0	0.1	.....	1.3	3.0	3.0	7.0
62	0 47	8 05	0 48b	7 53a	5.8	6.6	5.2	6.5	1.0	0.1	.....	1.3	2.9	2.9	7.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	NEW JERSEY, DELAWARE, AND PENNSYLVANIA—cont'd.										
	Schuylkill River, Pa.	*North.*	*West.*				*Time meridian 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Girard Point	39 54	75 12	5 01	Philadelphia	87	−0 28	−0 38	+0.8	0.0	1.13
2	Point Breeze Gas Works	39 55	75 12	5 01	Philadelphia	87	−0 18	−0 33	+0.7	0.0	1.11
3	Grays Ferry	39 57	75 12	5 01	Philadelphia	87	−0 11	−0 21	+0.4	0.0	1.08
4	Chestnut Street Bridge	39 57	75 11	5 01	Philadelphia	87	−0 04	−0 08	+0.3	0.0	1.04
5	Wire Bridge and Fairmount Dam	39 58	75 11	5 01	Philadelphia	87	0 00	0 00	0.0	0.0	1.00
	Delaware River—Continued.										
6	League Island Navy-Yard, Pa	39 53	75 11	5 01	Philadelphia	87	−0 30	−0 38	+0.7	0.0	1.11
7	Gloucester, N. J., & Gr'wich Pt. Pa.	39 54	75 08	5 01	Philadelphia	87	−0 18	−0 21	+0.4	0.0	1.08
8	Philadelphia, Washington av., Pa	39 56	75 09	5 01	Philadelphia	87	−0 06	−0 06	+0.3	0.0	1.04
9	PHILADELPHIA, Chestnut st., Pa	39 57	75 09	5 01	Philadelphia	87	0 00	0 00	0.0	0.0	1.00
10	Camden, Coopers Point, N. J	39 57	75 08	5 01	Philadelphia	87	+0 03	+0 04	0.0	0.0	1.00
11	Philadelphia, Cramps Ship Yd., Pa.	39 58	75 07	5 00	Philadelphia	87	+0 06	+0 07	0.0	0.0	1.00
12	Philadelphia, Allegheny ave., Pa.	39 59	75 05	5 00	Philadelphia	87	+0 11	+0 11	0.0	0.0	1.00
13	Bridesburg, Pa	40 00	75 04	5 00	Philadelphia	87	+0 23	+0 26	+0.2	0.0	1.02
14	Delanco, Rancocas Creek, N. J	40 03	74 57	5 00	Philadelphia	87	+0 54	+0 59	+0.4	0.0	1.08
15	Centerton, Rancocas Creek, N. J	40 00	74 52	4 59	Philadelphia	87	+1 25	+1 40	−1.2	0.0	0.77
16	Mount Holly, Rancocas Creek, N. J	40 00	74 48	4 59	Philadelphia	87	+2 00	+2 30	−4.0	0.0	0.25
17	Burlington, N. J	40 05	74 51	4 59	Philadelphia	87	+1 26	+1 33	+0.4	0.0	1.08
18	Bristol, Pa	40 06	74 51	4 59	Philadelphia	87	+1 30	+1 38	+0.4	0.0	1.06
19	Bordentown, N. J	40 09	74 43	4 59	Philadelphia	87	+2 30	+2 40	−0.1	0.0	0.96
20	Trenton, N. J	40 13	74 46	4 59	Philadelphia	87	+2 55	+3 26	−1.2	0.0	0.77
	DELAWARE—continued.										
	Outer coast.										
21	Rehoboth	38 43	75 04	5 00	Sandy Hook	83	+0 44	+0 28	−0.4	0.0	0.91
22	Indian River Inlet	38 37	75 05	5 00	Sandy Hook	83	+0 38	+0 30	−0.7	0.0	0.85
	MARYLAND.										
	Outer coast.										
23	Fenwick Island Light	38 27	75 03	5 00	Sandy Hook	83	+0 26	+0 29	−1.2	0.0	0.74
24	Ocean City	38 20	75 05	5 00	Sandy Hook	83	+0 21	+0 17	−1.3	0.0	0.72
25	North Beach Life-Saving Station	38 12	75 09	5 01	Sandy Hook	83	+0 20	+0 15	−1.5	0.0	0.67
	VIRGINIA.										
	Outer coast.										
26	Chincoteague Inlet	37 53	75 26	5 02	Old Point Comfort	91	−1 09	−0 43	+0.3	0.0	1.12
27	Franklin City	38 00	75 23	5 02	Old Point Comfort	91	+0 35	+1 13	−1.4	0.0	0.44
28	Metomkin Inlet	37 41	75 35	5 02	Old Point Comfort	91	−1 02	−0 42	+1.0	0.0	1.39
29	Great Machipongo Inlet	37 22	75 43	5 03	Old Point Comfort	91	−1 02	−0 44	+1.5	0.0	1.59
30	Ship Shoal Inlet	37 13	75 48	5 03	Old Point Comfort	91	−1 05	−0 48	+1.3	0.0	1.51
	Chesapeake Bay.										
31	Cape Charles Light	37 07	75 54	5 04	Old Point Comfort	91	−0 42	+0 01	0.0	0.0	1.00
32	Cape Henry Light	36 56	76 00	5 04	Old Point Comfort	91	−0 52	−0 35	+0.2	0.0	1.08
33	OLD POINT COMFORT	37 00	76 18	5 05	Old Point Comfort	91	0 00	0 00	0.0	0.0	1.00
34	Sewall Point, James River	36 57	76 20	5 05	Old Point Comfort	91	+0 05	+0 25	+0.1	0.0	1.04
35	Norfolk Navy-Yard	36 50	76 18	5 05	Old Point Comfort	91	+0 21	+0 30	+0.2	0.0	1.08
36	Newport News, James River	36 58	76 25	5 06	Old Point Comfort	91	+0 09	+0 29	+0.1	0.0	1.04
37	Newman Point, Nansemond River	36 52	76 30	5 06	Old Point Comfort	91	+0 32	+0 48	+0.4	0.0	1.16
38	Suffolk Bridge, Nansemond River	36 46	76 33	5 06	Old Point Comfort	91	+1 43	+2 07	+1.3	0.0	1.51
39	Warwick River, James River	37 05	76 33	5 06	Old Point Comfort	91	+0 52	+1 17	+0.1	0.0	1.04
40	Tavern Point, James River	37 12	76 41	5 07	Old Point Comfort	91	+2 11	+2 43	−0.4	0.0	0.84
41	Jamestown Island, James River	37 12	76 46	5 07	Old Point Comfort	91	+2 38	+3 13	−0.6	0.0	0.76
42	Dillard Wharf, James River	37 13	76 52	5 07	Old Point Comfort	91	+3 12	+3 49	−0.8	0.0	0.68
43	Gordon Creek, Chickahominy R	37 16	76 52	5 07	Old Point Comfort	91	+3 59	+4 41	−0.6	0.0	0.76
44	Graves Landing, Chickahominy R.	37 23	76 56	5 08	Old Point Comfort	91	+5 58	+6 49	−0.1	0.0	0.96
45	Claremont, James River	37 14	76 58	5 08	Old Point Comfort	91	+3 59	+4 43	−0.5	0.0	0.80
46	Brandon Point, James River	37 16	77 00	5 08	Old Point Comfort	91	+4 14	+5 01	−0.4	0.0	0.84
47	Dunmore's Wharf, James River	37 16	77 03	5 08	Old Point Comfort	91	+4 29	+5 16	−0.2	0.0	0.92
48	Harrison's Landing, James River	37 19	77 11	5 09	Old Point Comfort	91	+5 28	+6 21	+0.2	0.0	1.08
49	Jordan Point, James River	37 19	77 13	5 09	Old Point Comfort	91	+5 39	+6 36	+0.3	0.0	1.12
50	City Point, James River	37 19	77 17	5 09	Old Point Comfort	91	+5 56	+6 56	+0.3	0.0	1.12

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	1 00	8 20	0 58b	8 08a	6.0	6.5	5.4	6.6	1.0	0.1	.....	1.3	3.0	3.0	7.0
2	1 10	8 25	1 09b	8 13a	5.9	6.4	5.3	6.5	1.0	0.1	.....	1.3	3.0	2.9	7.0
3	1 17	8 37	1 16b	8 25a	5.7	6.2	5.1	6.5	1.0	0.1	.....	1.3	2.8	2.9	7.0
4	1 24	8 50	1 23b	8 37a	5.5	6.0	4.9	6.4	1.0	0.1	.....	1.2	2.8	2.9	7.0
5	1 28	8 58	1 27b	8 46a	5.3	5.8	4.7	6.4	1.0	0.1	.....	1.2	2.6	2.9	7.0
6	0 58	8 20	0 59b	8 08a	5.9	6.4	5.3	6.5	1.0	0.1	.....	1.3	3.0	2.9	7.0
7	1 10	8 37	1 11b	8 25a	5.7	6.2	5.2	6.3	1.0	0.1	.....	1.3	2.8	3.0	7.0
8	1 22	8 52	1 19b	8 40a	5.5	6.0	5.0	6.0	1.0	0.1	13 59	1.2	2.8	2.9	7.0
9	1 28	8 58	1 27b	8 49a	5.3	5.5	4.9	5.8	1.1	0.1	14 22	1.1	2.6	2.9	7.0
10	1 31	9 02	1 30b	8 52a	5.3	5.5	4.9	5.8	1.0	0.1	.....	1.2	2.6	2.8	7.0
11	1 35	9 06	1 33b	8 56a	5.3	5.6	4.9	5.8	0.9	0.1	.....	1.2	2.6	2.7	7.0
12	1 40	9 10	1 38b	8 59a	5.3	5.6	4.9	5.7	1.2	0.1	.....	1.2	2.6	2.6	7.0
13	1 52	9 25	1 52b	9 10a	5.4	5.7	5.0	5.5	1.2	0.1	.....	1.2	2.7	2.4	7.0
14	2 23	9 58	2 23b	9 44a	5.7	6.0	5.3	6.1	1.2	0.1	.....	1.2	2.8	2.8	7.5
15	2 55	10 40	2 55b	10 24a	4.1	4.8	3.7	4.4	1.0	0.1	.....	1.0	2.0	1.9	7.0
16	3 30	11 30	3 30b	11 00a	1.3	1.5	1.1	1.5	0.6	0.1	.....	0.6	0.6	0.5	7.5
17	2 56	10 33	2 56b	10 19a	5.7	6.0	5.3	6.0	1.2	0.1	.....	1.2	2.8	2.7	7.5
18	3 00	10 38	3 00b	10 24a	5.6	5.9	5.2	5.9	1.2	0.1	.....	1.2	2.8	2.7	7.5
19	4 00	11 40	4 00b	11 25a	5.1	5.4	4.7	5.4	1.2	0.1	.....	1.2	2.6	2.4	7.5
20	4 25	0 01	4 25b	− 0 15a	4.1	4.4	3.7	4.4	1.0	0.1	.....	1.0	2.0	1.9	7.5
21	8 10	1 47	8 07a	2 02b	4.2	5.1	3.3	4.6	0.9	0.2	.....	1.0	2.1	2.1	6.0
22	8 04	1 49	8 01a	2 03b	3.9	4.7	3.0	4.3	0.9	0.2	.....	0.9	2.0	2.0	6.0
23	7 52	1 48	7 49a	2 04b	3.4	4.1	2.7	3.7	0.8	0.1	.....	0.9	1.7	1.7	6.0
24	7 47	1 46	7 44a	2 02b	3.3	4.0	2.6	3.6	0.8	0.1	.....	0.9	1.6	1.6	6.0
25	7 45	1 43	7 42a	1 59b	3.1	3.8	2.4	3.4	0.8	0.1	.....	0.8	1.6	1.6	5.5
26	7 38	1 37	7 39a	1 21a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	5.0
27	9 22	3 33	9 24a	3 11a	1.1	1.3	0.9	1.3	0.4	0.1	.....	0.4	0.6	0.6	5.5
28	7 45	1 38	7 46a	1 24a	3.5	4.2	2.8	3.8	0.8	0.1	.....	0.8	1.8	1.8	5.0
29	7 44	1 35	7 45a	1 23a	4.0	4.8	3.2	4.3	0.8	0.1	.....	0.8	2.0	2.0	4.5
30	7 41	1 31	7 42a	1 18a	3.8	4.6	3.0	4.1	0.8	0.1	.....	0.8	1.9	1.9	4.5
31	8 03	2 19	8 04a	2 02a	2.5	3.0	2.0	2.7	0.7	0.1	.....	0.7	1.2	1.3	4.5
32	7 53	1 43	7 54a	1 27a	2.7	3.2	2.1	2.9	0.7	0.1	.....	0.7	1.4	1.4	4.0
33	8 44	2 17	8 45a	2 01a	2.5	3.0	2.0	2.7	0.7	0.1	8 56	0.7	1.3	1.3	4.0
34	8 49	2 42	8 50a	2 25a	2.6	3.1	2.1	2.8	0.7	0.1	.....	0.7	1.3	1.3	4.0
35	9 05	2 47	9 06a	2 31a	2.7	3.2	2.1	2.9	0.7	0.1	.....	0.7	1.4	1.4	4.0
36	8 52	2 45	8 53a	2 28a	2.6	3.1	2.1	2.8	0.7	0.1	.....	0.7	1.3	1.3	4.0
37	9 15	3 04	9 16a	2 49a	2.9	3.5	2.3	3.1	0.7	0.1	.....	0.7	1.4	1.5	4.0
38	10 26	4 23	10 27a	4 10a	3.8	4.6	3.0	4.1	0.8	0.1	.....	0.8	1.9	1.9	4.0
39	9 35	3 33	9 36a	3 16a	2.6	3.1	2.1	2.8	0.7	0.1	.....	0.7	1.3	1.3	4.0
40	10 53	4 58	10 54a	4 40a	2.1	2.5	1.7	2.3	0.6	0.1	.....	0.6	1.0	1.1	4.0
41	11 20	5 28	10 22a	5 08a	1.9	2.3	1.5	2.1	0.6	0.1	.....	0.6	1.0	1.0	4.0
42	11 54	6 04	11 55a	5 46a	1.7	2.0	1.3	1.9	0.5	0.1	.....	0.5	0.8	0.9	4.0
43	0 16	6 56	0 18b	6 36a	1.9	2.3	1.5	2.1	0.6	0.1	.....	0.6	1.0	1.0	4.0
44	2 14	9 03	2 15b	8 45a	2.4	2.9	1.9	2.6	0.7	0.1	.....	0.7	1.2	1.2	4.0
45	0 15	6 57	0 17b	6 38a	2.0	2.4	1.6	2.2	0.6	0.1	.....	0.6	1.0	1.0	4.0
46	0 30	7 15	0 31b	6 57a	2.1	2.5	1.7	2.3	0.6	0.1	.....	0.6	1.0	1.1	4.0
47	0 45	7 30	0 46b	7 14a	2.3	2.8	1.8	2.5	0.6	0.1	.....	0.6	1.2	1.2	4.0
48	1 43	8 34	1 44b	8 18a	2.7	3.2	2.1	2.9	0.7	0.1	.....	0.7	1.4	1.4	4.0
49	1 54	8 49	1 55b	8 33a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
50	2 11	9 09	2 12b	8 53a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	3.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	VIRGINIA—continued.										
	Chesapeake Bay—Continued.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Petersburg, Appomattox River	37 14	77 24	5 10	Old Point Comfort	91	+ 8 16	+ 9 49	+0.1	0.0	1.04
2	Shirley, James River	37 20	77 16	5 09	Newport	67	+ 7 25	+ 8 48	−0.4	0.0	0.89
3	Tilman's W'f, Curles Neck, Jas. R.	37 24	77 18	5 09	Newport	67	+ 8 12	+ 9 42	−0.3	0.0	0.91
4	Varina, James River	37 23	77 20	5 09	Newport	67	+ 8 29	+10 01	−0.1	0.0	0.97
5	Dutch Gap, James River	37 23	77 22	5 09	Newport	67	+ 8 37	+10 10	0.0	0.0	1.00
6	Cox's Wharf, James River	37 23	77 21	5 09	Newport	67	+ 8 41	+10 16	+0.2	0.0	1.06
7	Falling Creek, James River	37 26	77 26	5 10	Newport	67	+ 9 06	+10 44	+0.3	0.0	1.09
8	Warwick Bar, James River	37 27	77 25	5 10	Newport	67	+ 9 11	+10 52	+0.3	0.0	1.09
9	Richmond Bar, James River	37 29	77 25	5 10	Newport	67	+ 9 16	+10 59	+0.5	0.0	1.14
10	Drewry Island, James River	37 30	77 25	5 10	Newport	67	+ 9 23	+11 09	+0.3	0.0	1.09
11	Richmond, James River	37 31	77 25	5 10	Newport	67	+ 9 33	+11 21	+0.1	0.0	1.03
12	Back River	37 06	76 17	5 05	Old Point Comfort	91	− 0 30	− 0 02	−0.1	0.0	0.96
13	Tue Point, York River	37 13	76 23	5 06	Old Point Comfort	91	− 0 04	− 0 04	−0.1	0.0	0.96
14	Quarter Point, York River	37 15	76 27	5 06	Old Point Comfort	91	+ 0 19	+ 0 19	−0.2	0.0	0.92
15	Yorktown, York River	37 14	76 30	5 06	Old Point Comfort	91	+ 0 27	+ 0 26	−0.1	0.0	0.96
16	Mumford Island, York River	37 16	76 31	5 06	Old Point Comfort	91	+ 0 29	+ 0 28	+0.3	0.0	1.12
17	Capahosic, York River	37 23	76 38	5 07	Old Point Comfort	91	+ 0 45	+ 0 49	+0.3	0.0	1.12
18	Moody's Wharf, York River	37 25	76 42	5 07	Old Point Comfort	91	+ 1 22	+ 1 28	+0.5	0.0	1.20
19	West Point, York River	37 32	76 48	5 07	Old Point Comfort	91	+ 1 31	+ 2 06	+1.0	0.0	1.39
20	Cherrystone Light	37 15	76 02	5 04	Old Point Comfort	91	− 0 07	+ 0 27	0.0	0.0	1.00
21	Mobjack Bay	37 22	76 21	5 05	Old Point Comfort	91	− 0 10	+ 0 16	−0.1	0.0	0.96
22	Mattawoman Creek	37 24	75 58	5 04	Old Point Comfort	91	+ 0 40	+ 1 53	−0.4	0.0	0.80
23	Cherry Point, Piankatank River	37 31	76 17	5 05	Old Point Comfort	91	+ 1 19	+ 1 56	−1.2	0.0	0.52
24	Harrow's Wharf, Piankatank River	37 32	76 24	5 06	Old Point Comfort	91	+ 1 30	+ 2 23	−1.3	0.0	0.48
25	Stingray Point Light	37 34	76 16	5 05	Old Point Comfort	91	+ 1 23	+ 1 43	−1.4	0.0	0.44
26	Lawson Bay, Rappahannock River	37 37	76 23	5 06	Old Point Comfort	91	+ 1 41	+ 2 26	−1.3	0.0	0.48
27	Carter Creek, Rappahannock R.	37 39	76 26	5 06	Old Point Comfort	91	+ 2 29	+ 3 17	−1.2	0.0	0.52
28	Orchard Point, Rappahannock R.	37 39	76 27	5 06	Old Point Comfort	91	+ 1 43	+ 2 40	−1.2	0.0	0.52
29	Urbana, Rappahannock River	37 38	76 34	5 06	Old Point Comfort	91	+ 2 24	+ 3 28	−1.2	0.0	0.52
30	Tappahannock, Rappahannock R.	37 56	76 52	5 07	Old Point Comfort	91	+ 4 24	+ 5 31	−0.9	0.0	0.64
31	Saunder's Whf., Rappahannock R.	38 05	77 02	5 08	Old Point Comfort	91	+ 6 44	+ 7 51	−1.0	0.0	0.60
32	Port Royal, Rappahannock River	38 10	77 11	5 09	Old Point Comfort	91	+ 7 30	+ 8 37	−0.4	0.0	0.84
33	Corbins Neck, Rappahannock R.	38 14	77 17	5 09	Old Point Comfort	91	+ 8 57	+10 04	−0.2	0.0	0.92
34	Fredericksburg, Rappahannock R.	38 18	77 27	5 10	Old Point Comfort	91	+10 01	+11 09	+0.3	0.0	1.12
35	Pungoteague Creek	37 40	75 50	5 03	Old Point Comfort	91	+ 2 11	+ 2 44	−0.6	0.0	0.76
36	Dividing Creek	37 44	76 19	5 05	Old Point Comfort	91	+ 2 47	+ 3 26	−1.4	0.0	0.44
37	Great Wicomico River Light	37 48	76 15	5 05	Old Point Comfort	91	+ 2 44	+ 3 20	−1.4	0.0	0.44
38	Watts Island Light	37 47	75 54	5 04	Old Point Comfort	91	+ 2 39	+ 3 18	−0.6	0.0	0.76
39	Hunting Creek	37 48	75 43	5 03	Old Point Comfort	91	+ 3 05	+ 3 44	0.0	0.0	1.00
	MARYLAND AND VIRGINIA.										
	Potomac River.										
40	Smith Point Light, Va	37 54	76 12	5 05	Old Point Comfort	91	+ 3 51	+ 4 13	−1.1	0.0	0.56
41	Point Lookout Light, Md	38 02	76 19	5 05	Old Point Comfort	91	+ 4 12	+ 4 35	−1.1	0.0	0.56
42	Coan River, Va	37 59	76 28	5 06	Old Point Comfort	91	+ 4 32	+ 4 56	−1.1	0.0	0.56
43	Kinsale, Yeocomico River, Va	38 02	76 34	5 06	Old Point Comfort	91	+ 4 45	+ 5 10	−1.0	0.0	0.60
44	St. Mary, St. Mary River, Md	38 11	76 26	5 06	Old Point Comfort	91	+ 5 02	+ 5 31	−0.8	0.0	0.68
45	Piney Point Light, Md	38 08	76 32	5 06	Washington	95	− 6 36	− 6 48	−1.2	0.0	0.55
46	Leonardtown, Breton Bay, Md	38 15	76 41	5 07	Washington	95	− 6 10	− 6 17	−1.2	0.0	0.59
47	Blackistone Island Light, Md	38 12	76 45	5 07	Washington	95	− 6 20	− 6 30	−1.0	0.0	0.62
48	Lancaster, Wicomico River, Md	38 16	76 50	5 07	Washington	95	− 6 10	− 6 19	−0.9	0.0	0.66
49	Colonial Beach, Va	38 15	76 57	5 08	Washington	95	− 5 56	− 6 01	−1.2	0.0	0.59
50	Lower Cedar Point, Md	38 20	76 58	5 08	Washington	95	− 5 22	− 5 30	−1.0	0.0	0.62
51	Mathias Point, Va	38 24	77 02	5 08	Washington	95	− 4 47	− 4 54	−1.2	0.0	0.55
52	Chapel Point, Port Tobacco R., Va	38 28	77 02	5 08	Washington	95	− 4 30	− 4 36	−1.0	0.0	0.62
53	Nanjemoy Creek, Md	38 25	77 07	5 08	Washington	95	− 4 24	− 4 30	−1.3	0.0	0.52
54	Aquia Creek, Va	38 23	77 19	5 09	Washington	95	− 3 24	− 3 28	−1.2	0.0	0.55
55	Liverpool Point, Md	38 28	77 16	5 09	Washington	95	− 3 13	− 3 17	−1.2	0.0	0.59
56	Quantico Creek, Va	38 32	77 17	5 09	Washington	95	− 2 49	− 2 52	−1.0	0.0	0.62
57	Deep Point, Md	38 34	77 12	5 09	Washington	95	− 2 26	− 2 28	−0.9	0.0	0.66
58	Indian Head, Md	38 36	77 10	5 09	Washington	95	− 2 09	− 2 10	−0.8	0.0	0.69
59	Glymont, Md	38 37	77 08	5 09	Washington	95	− 2 03	− 2 04	−0.6	0.0	0.76
60	Marshall Hall, Md	38 41	77 06	5 08	Washington	95	− 1 29	− 1 29	−0.5	0.0	0.79
61	Mount Vernon, Va	38 42	77 05	5 08	Washington	95	− 1 23	− 1 23	−0.4	0.0	0.83
62	Fort Washington, Md	38 43	77 02	5 08	Washington	95	− 1 05	− 1 05	−0.2	0.0	0.90
63	River View, Md	38 43	77 02	5 08	Washington	95	− 1 03	− 1 02	−0.2	0.0	0.90
64	Alexandria, Va	38 48	77 02	5 08	Washington	95	− 0 36	− 0 41	0.0	0.0	0.97

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean. (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	4 30	12 03	4 31b	11 44a	2.6	3.1	2.1	2.8	0.7	0.1	.....	0.7	1.3	1.3	3.5
2	2 23	9 23	2 24b	9 09a	3.1	3.7	2.5	3.3	0.7	0.1	.....	0.7	1.6	1.6	4.0
3	3 10	10 17	3 11b	10 01a	3.2	3.8	2.5	3.5	0.8	0.1	.....	0.8	1.6	1.6	4.0
4	3 27	10 36	3 28b	10 21a	3.4	4.1	2.7	3.7	0.8	0.1	.....	0.8	1.7	1.7	4.0
5	3 35	10 45	3 36b	10 31a	3.5	4.2	2.8	3.8	0.8	0.1	.....	0.8	1.8	1.8	4.0
6	3 39	10 51	3 40b	10 37a	3.7	4.4	2.9	4.0	0.8	0.1	.....	0.8	1.8	1.9	4.0
7	4 03	11 18	4 04b	11 05a	3.8	4.6	3.0	4.1	0.8	0.2	.....	0.8	1.9	1.9	3.5
8	4 08	11 26	4 09b	11 13a	3.8	4.6	3.0	4.1	0.7	0.3	.....	0.8	1.9	1.9	3.5
9	4 13	11 33	4 14b	11 20a	4.0	4.8	3.2	4.3	0.6	0.4	.....	0.8	2.0	2.0	3.5
10	4 20	11 43	4 21b	11 30a	3.8	4.6	3.0	4.1	0.5	0.5	.....	0.8	1.9	1.9	3.5
11	4 30	11 55	4 31b	11 41a	3.6	4.3	2.8	3.9	0.4	0.6	.....	0.7	1.8	1.8	3.5
12	8 14	2 15	8 15a	1 57a	2.4	2.9	1.9	2.6	0.7	0.1	.....	0.7	1.2	1.2	4.0
13	8 39	2 12	8 40a	1 54a	2.4	2.9	1.9	2.6	0.7	0.1	.....	0.7	1.2	1.2	4.5
14	9 02	2 35	9 03a	2 19a	2.3	2.8	1.8	2.5	0.6	0.1	.....	0.6	1.2	1.2	4.0
15	9 10	2 42	9 11a	2 24a	2.4	2.9	1.9	2.6	0.7	0.1	.....	0.7	1.2	1.2	4.0
16	9 12	2 44	9 13a	2 28a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
17	9 27	3 04	9 28a	2 48a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
18	10 04	3 43	10 05a	3 29a	3.0	3.6	2.4	3.2	0.7	0.1	.....	0.7	1.5	1.5	4.0
19	10 13	4 21	10 14a	4 07a	3.5	4.2	2.8	3.8	0.8	0.1	.....	0.8	1.8	1.8	4.0
20	8 38	2 45	8 24a	2 28a	2.5	3.0	2.0	2.7	0.7	0.1	.....	0.7	1.2	1.3	4.5
21	8 34	2 33	8 35a	2 15a	2.4	2.9	1.9	2.6	0.7	0.1	.....	0.7	1.2	1.2	4.5
22	9 25	4 11	9 27a	3 52a	2.0	2.4	1.6	2.2	0.6	0.1	.....	0.6	1.0	1.0	4.5
23	10 03	4 13	10 05a	3 49a	1.3	1.6	1.0	1.5	0.5	0.1	.....	0.5	0.6	0.7	4.5
24	10 13	4 39	10 15a	4 13a	1.2	1.4	0.9	1.4	0.5	0.1	.....	0.5	0.6	0.6	4.5
25	10 07	4 00	10 11a	3 43a	1.1	1.3	0.9	1.3	0.3	0.1	11 03	0.3	0.6	0.6	4.5
26	10 24	4 42	10 26a	4 16a	1.2	1.4	0.9	1.4	0.5	0.1	.....	0.5	0.6	0.6	4.5
27	11 12	5 33	11 14a	5 09a	1.3	1.6	1.0	1.5	0.5	0.1	.....	0.5	0.6	0.7	4.5
28	10 26	4 56	10 28a	4 32a	1.3	1.6	1.0	1.5	0.5	0.1	.....	0.5	0.6	0.7	4.5
29	11 07	5 44	11 09a	5 20a	1.3	1.6	1.0	1.5	0.5	0.1	.....	0.5	0.6	0.7	4.5
30	0 41	7 46	0 43b	7 27a	1.6	1.9	1.3	1.8	0.5	0.1	.....	0.5	0.8	0.8	4.5
31	3 00	10 05	3 02b	9 45a	1.5	1.8	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	4.0
32	3 45	10 50	3 46b	10 32a	2.1	2.5	1.7	2.3	0.6	0.1	.....	0.6	1.0	1.1	4.0
33	5 12	12 17	5 13b	12 01a	2.3	2.8	1.8	2.5	0.6	0.1	.....	0.6	1.2	1.2	4.0
34	6 15	0 56	6 17b	0 40b	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
35	10 57	5 03	10 59a	4 43a	1.9	2.3	1.5	2.1	0.6	0.1	.....	0.6	1.0	1.0	5.0
36	11 31	5 43	11 33a	5 21a	1.1	1.3	0.9	1.3	0.4	0.1	.....	0.4	0.6	0.6	4.5
37	11 28	5 37	11 31a	5 57a	1.1	1.3	0.9	1.2	0.3	0.1	12 00	0.3	0.5	0.5	4.5
38	11 24	5 36	11 26a	5 16a	1.9	2.3	1.5	2.1	0.6	0.1	.....	0.6	1.0	1.0	5.0
39	11 51	6 03	11 52a	5 46a	2.5	3.0	2.0	2.7	0.7	0.1	.....	0.7	1.2	1.3	5.0
40	0 10	6 30	0 12b	6 08b	1.4	1.7	1.1	1.6	0.5	0.1	.....	0.5	0.7	0.7	5.0
41	0 31	6 52	0 33b	6 30b	1.4	1.7	1.1	1.6	0.5	0.1	.....	0.5	0.7	0.7	5.0
42	0 50	7 12	0 52b	6 50b	1.4	1.7	1.1	1.6	0.5	0.1	.....	0.5	0.7	0.7	4.5
43	1 03	7 26	1 05b	7 06b	1.5	1.8	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	4.5
44	1 20	7 47	1 22b	7 29b	1.7	2.0	1.3	1.9	0.5	0.1	.....	0.5	0.8	0.9	4.5
45	1 15	7 40	1 12b	7 55b	1.6	1.9	1.3	1.8	0.4	0.1	.....	0.4	0.8	0.8	4.5
46	1 40	8 10	1 37b	8 24b	1.7	2.0	1.4	1.9	0.4	0.1	.....	0.4	0.8	0.9	4.5
47	1 30	7 57	1 28b	8 10b	1.8	2.1	1.5	2.0	0.4	0.1	.....	0.4	0.9	0.9	4.5
48	1 40	8 08	1 38b	8 21b	1.9	2.2	1.6	2.1	0.4	0.1	.....	0.4	1.0	1.0	4.5
49	1 53	8 25	1 51b	8 37b	1.7	1.9	1.4	2.0	0.5	0.2	.....	0.4	0.8	0.9	4.5
50	2 27	8 56	2 25b	9 09b	1.8	2.1	1.5	2.0	0.4	0.1	.....	0.4	0.9	0.9	4.5
51	3 02	9 32	2 59b	9 47b	1.6	1.9	1.3	1.8	0.4	0.1	.....	0.4	0.8	0.8	4.5
52	3 19	9 50	3 17b	10 03b	1.8	2.1	1.5	2.0	0.4	0.1	.....	0.4	0.9	0.9	4.5
53	3 25	9 56	3 22b	10 12b	1.5	1.7	1.2	1.7	0.4	0.1	.....	0.4	0.8	0.8	4.5
54	4 24	10 57	4 21b	11 12b	1.6	1.9	1.3	1.8	0.4	0.1	.....	0.4	0.8	0.8	4.5
55	4 35	11 08	4 32b	11 22b	1.7	2.0	1.4	1.9	0.4	0.1	.....	0.4	0.8	0.9	4.5
56	4 59	11 33	4 57b	11 46b	1.8	2.1	1.5	2.0	0.4	0.1	.....	0.4	0.9	0.9	4.5
57	5 22	11 57	5 20b	12 10b	1.9	2.2	1.6	2.1	0.4	0.1	.....	0.4	1.0	1.0	4.5
58	5 39	12 15	5 37b	12 27b	2.0	2.3	1.7	2.2	0.4	0.1	.....	0.4	1.0	1.0	4.5
59	5 45	12 21	5 42b	12 35b	2.2	2.6	1.8	2.4	0.5	0.1	.....	0.5	1.1	1.1	4.5
60	6 20	0 32	6 18b	0 45a	2.3	2.7	1.9	2.5	0.5	0.1	.....	0.5	1.2	1.2	4.5
61	6 26	0 38	6 24b	0 51a	2.4	2.8	2.0	2.6	0.5	0.1	.....	0.5	1.2	1.2	4.5
62	6 44	0 56	6 42b	1 07a	2.6	3.0	2.2	2.8	0.5	0.1	.....	0.5	1.3	1.3	4.5
63	6 46	0 59	6 44b	1 10a	2.6	3.0	2.2	2.8	0.5	0.1	.....	0.5	1.3	1.3	4.5
64	7 13	1 20	7 11b	1 31a	2.8	3.2	2.3	3.0	0.5	0.1	.....	0.5	1.4	1.4	4.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	DISTRICT OF COLUMBIA AND VIRGINIA.										
	Potomac River—Continued.	*North.*	*West.*				*Time meridian, 75° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Giesboro Point, D. C.	38 51	77 01	5 08	Washington	95	−0 19	−0 17	0.0	0.0	1.00
2	Washington Navy-Yard, D. C	38 52	76 59	5 08	Washington	95	−0 07	−0 05	+0.2	0.0	1.03
3	Washington, Arsenal Whf., D. C.	38 52	77 01	5 08	Washington	95	−0 13	−0 11	0.0	0.0	1.00
4	WASHINGTON, Seventh street, D. C.	38 52	77 01	5 08	Washington	95	0 00	0 00	0.0	0.0	1.00
5	Long Bridge, south end, Va.	38 53	77 02	5 08	Washington	95	−0 09	−0 08	0.0	0.0	1.00
6	Washington, Aqueduct Br., D. C.	38 54	77 04	5 08	Washington	95	+0 05	+0 07	+0.2	0.0	1.03
7	Mankins Fishery, Va.	38 55	77 06	5 08	Washington	95	+0 16	+0 19	+0.3	0.0	1.07
	MARYLAND—continued.										
	Chesapeake Bay—Continued.										
8	Shelltown, Pocomoke River	37 59	75 39	5 03	Old Point Comfort	91	+3 49	+4 41	+0.1	0.0	1.04
9	Rehoboth, Pocomoke River	38 03	75 40	5 03	Old Point Comfort	91	+4 46	+5 19	−0.4	0.0	0.84
10	Newtown, Pocomoke River	38 05	75 34	5 02	Old Point Comfort	91	+5 57	+6 13	−0.7	0.0	0.72
11	Mattapony, Pocomoke River	38 07	75 29	5 02	Old Point Comfort	91	+6 08	+6 41	−0.4	0.0	0.84
12	Snow Hill, Pocomoke River	38 09	75 25	5 02	Old Point Comfort	91	+7 13	+8 00	0.0	0.0	1.00
13	Janes Island Light	37 58	75 55	5 04	Old Point Comfort	91	+3 59	+4 29	−1.0	0.0	0.60
14	Crisfield	37 59	75 51	5 03	Old Point Comfort	91	+4 01	+4 31	−0.6	0.0	0.76
15	Solomons Lump Light	38 03	76 01	5 04	Old Point Comfort	91	+4 36	+5 10	−0.8	0.0	0.68
16	Holland Island Bar Light	38 04	76 06	5 04	Old Point Comfort	91	+4 04	+4 30	−1.0	0.0	0.60
17	Great Shoals Light, Monie Bay	38 13	75 53	5 04	Old Point Comfort	91	+4 45	+5 26	−1.0	0.0	0.60
18	Vienna, Nanticoke River	38 29	75 49	5 03	Old Point Comfort	91	+6 00	+6 51	−0.7	0.0	0.72
19	Clay Island Light	38 14	75 58	5 04	Old Point Comfort	91	+4 33	+5 13	−1.0	0.0	0.60
20	Hooper Strait Light	38 14	76 04	5 04	Baltimore	99	−5 14	−5 17	+0.5	0.0	1.39
21	Drum Point, Patuxent River	38 19	76 25	5 06	Baltimore	99	−5 17	−5 30	0.0	0.0	1.00
22	Benedict, Patuxent River	38 30	76 40	5 07	Baltimore	99	−4 13	−4 07	+0.3	0.0	1.23
23	Nottingham, Patuxent River	38 43	76 42	5 07	Baltimore	99	−3 03	−2 47	+0.3	0.0	1.23
24	Cove Point Light	38 23	76 23	5 06	Baltimore	99	−4 54	−4 53	+0.2	0.0	1.15
25	James Point	38 32	76 21	5 05	Baltimore	99	−4 10	−4 09	+0.2	0.0	1.15
26	Sharps Island Light	38 38	76 22	5 05	Baltimore	99	−3 56	−4 08	+0.1	0.0	1.07
27	Cambridge, Choptank River	38 34	76 04	5 04	Baltimore	99	−3 13	−2 57	+0.5	0.0	1.39
28	Dover Ferry, Choptank River	38 45	76 00	5 04	Baltimore	99	−2 11	−2 15	+0.7	0.0	1.56
29	Oxford, Tred Avon Creek	38 41	76 10	5 05	Baltimore	99	−2 40	−2 24	+0.5	0.0	1.39
30	Eastern Point, Tred Avon Creek	38 46	76 06	5 04	Baltimore	99	−1 56	−1 35	+0.6	0.0	1.48
31	Fairhaven, Herring Bay	38 45	76 33	5 06	Baltimore	99	−3 19	3 03	+0.3	0.0	1.23
32	Poplar Island	38 46	76 23	5 06	Baltimore	99	−3 14	−3 33	0.0	0.0	0.99
33	Bloody Point Bar Light	38 50	76 24	5 06	Baltimore	99	−3 04	−3 23	−0.1	0.0	0.90
34	St. Michaels	38 47	76 13	5 05	Baltimore	99	−2 35	−2 14	+0.1	0.0	1.07
35	Dutchman Point, West River	38 52	76 30	5 06	Baltimore	99	−2 51	−3 08	−0.2	0.0	0.82
36	Thomas Point Shoal Light	38 54	76 26	5 06	Baltimore	99	−2 25	−2 40	−0.4	0.0	0.66
37	Mayo Point, South River	38 55	76 30	5 06	Baltimore	99	−2 34	−2 13	−0.5	0.0	0.58
38	Bay Ridge	38 56	76 27	5 06	Baltimore	99	−2 24	−2 38	−0.3	0.0	0.74
39	Annapolis, Severn River	38 58	76 29	5 06	Baltimore	99	−1 55	−2 20	−0.3	0.0	0.74
40	Sandy Point Light	39 01	76 23	5 06	Baltimore	99	−1 34	−1 37	0.0	0.0	0.99
41	Persimmon Point, Magothy River	39 03	76 26	5 06	Baltimore	99	−1 28	−0 58	−0.2	0.0	0.82
42	Love Point Light, Chester River	39 03	76 17	5 05	Baltimore	99	−0 45	−1 10	0.0	0.0	0.92
43	Queenstown, Chester River	38 59	76 10	5 05	Baltimore	99	−0 15	−0 25	+0.4	0.0	1.31
44	Holton Point, Chester River	39 05	76 09	5 05	Baltimore	99	+0 05	−0 09	+0.5	0.0	1.39
45	Melton Point, Chester River	39 08	76 05	5 04	Baltimore	99	+0 19	+0 05	+0.6	0.0	1.48
46	Chestertown, Chester River	39 12	76 04	5 04	Baltimore	99	+0 41	+0 19	+0.8	0.0	1.64
47	Bodkin Point, Patapsco River	39 08	76 26	5 06	Baltimore	99	−0 47	−0 18	−0.2	0.0	0.82
48	Seven-Foot Knoll Light	39 09	76 25	5 06	Baltimore	99	−0 40	−0 38	−0.2	0.0	0.82
49	North Point, Patapsco River	39 12	76 26	5 06	Baltimore	99	−0 24	−0 15	−0.2	0.0	0.82
50	Fort Carroll Light, Patapsco River	39 13	76 31	5 06	Baltimore	99	−0 06	−0 06	−0.1	0.0	0.90
51	Fort McHenry, Patapsco River	39 16	76 35	5 06	Baltimore	99	−0 02	−0 02	+0.1	0.0	1.00
52	BALTIMORE, Fells Point	39 17	76 35	5 06	Baltimore	99	0 00	0 00	0.0	0.0	1.00
53	Tolchester Beach	39 13	76 14	5 05	Baltimore	99	+0 15	+0 01	0.0	0.0	1.00
54	Turkey Point, Middle River	39 18	76 23	5 06	Baltimore	99	+0 20	+0 06	0.0	0.0	1.00
55	Pooles Island Light	39 17	76 16	5 05	Baltimore	99	+0 46	+0 23	0.0	0.0	1.00
56	Howell Point	39 22	76 07	5 04	Baltimore	99	+1 11	+1 00	+0.2	0.0	1.15
57	Betterton, Sassafras River	39 22	76 04	5 04	Baltimore	99	+1 24	+1 30	+0.8	0.0	1.64
58	Frederick, Sassafras River	39 22	75 53	5 04	Baltimore	99	+1 54	+2 20	+1.2	0.0	1.97
59	Elk River Entrance, Reybolds Wharf	39 26	75 59	5 04	Baltimore	99	+1 50	+1 36	+0.9	0.0	1.72
60	Back Creek Entrance, Elk River	39 31	75 52	5 03	Baltimore	99	+2 18	+2 39	+0.9	0.0	1.72
61	Elkton, Elk River	39 36	75 50	5 05	Baltimore	99	+2 53	+3 39	+0.3	0.0	1.23
62	Havre de Grace, Susquehanna River	39 32	76 05	5 04	Baltimore	99	+3 01	+3 02	+0.8	0.0	1.64
63	Port Deposit, Susquehanna River	39 36	76 06	5 04	Baltimore	99	+3 24	+2 20	+0.9	0.0	1.72

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	7 30	1 44	7 28b	1 54a	2.9	3.4	2.4	3.1	0.5	0.1	.....	0.5	1.4	1.5	4.5
2	7 42	1 56	7 40b	2 07a	3.0	3.5	2.5	3.2	0.5	0.1	19 21	0.5	1.5	1.5	4.5
3	7 36	1 50	7 34b	2 00a	2.9	3.4	2.4	3.1	0.5	0.1	.....	0.5	1.4	1.5	4.5
4	7 49	2 01	7 47b	2 12a	2.9	3.3	2.4	3.1	0.6	0.2	19 16	0.6	1.4	1.5	4.5
5	7 40	1 53	7 38b	2 03a	2.9	3.4	2.4	3.1	0.5	0.1	.....	0.5	1.4	1.5	4.5
6	7 54	2 08	7 52b	2 19a	3.0	3.5	2.5	3.2	0.5	0.1	.....	0.5	1.5	1.5	4.5
7	8 05	2 20	8 03b	2 30a	3.1	3.6	2.6	3.3	0.5	0.1	.....	0.5	1.6	1.6	4.5
8	0 10	7 00	0 11b	6 44a	2.6	3.1	2.1	2.8	0.7	0.1	.....	0.7	1.3	1.3	5.0
9	1 07	7 38	1 08b	7 21a	2.1	2.5	1.7	2.3	0.6	0.1	.....	0.6	1.0	1.1	5.0
10	2 19	8 33	2 21b	8 14a	1.8	2.2	1.4	2.0	0.6	0.1	.....	0.6	0.9	0.9	5.0
11	2 30	9 01	2 31b	9 44a	2.1	2.5	1.7	2.3	0.6	0.1	.....	0.6	1.0	1.1	5.5
12	3 35	10 20	3 36b	10 03a	2.5	3.0	2.0	2.7	0.7	0.1	.....	0.7	1.2	1.3	5.5
13	0 20	6 48	0 30b	6 30a	1.5	1.8	1.2	1.9	0.6	0.4	.....	0.7	0.8	0.9	5.0
14	0 22	6 50	0 33b	6 32a	1.9	2.3	1.5	2.7	0.8	0.5	.....	0.9	1.0	1.3	5.0
15	0 56	7 28	0 32b	6 31a	1.7	1.8	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	5.0
16	0 24	6 48	0 29b	6 33a	1.5	1.7	1.3	1.7	0.4	0.1	14 10	0.4	0.8	0.8	5.0
17	1 05	7 44	1 07b	7 25a	1.5	1.8	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	5.0
18	2 30	9 10	2 32b	8 51a	1.8	2.2	1.4	2.0	0.6	0.1	.....	0.6	0.9	0.9	5.5
19	0 53	7 31	0 55b	7 12a	1.5	1.8	1.2	1.7	0.5	0.1	.....	0.5	0.8	0.8	5.0
20	1 22	7 58	1 03b	7 09a	1.7	2.0	1.4	1.9	0.5	0.3	.....	0.6	0.8	0.9	5.0
21	1 17	7 43	1 34b	7 30a	1.2	1.4	1.0	1.4	0.2	0.3	17 14	0.4	0.6	0.7	4.5
22	2 20	9 05	2 32b	8 47a	1.5	1.7	1.3	1.6	0.4	0.3	.....	0.5	0.8	0.8	5.0
23	3 30	10 25	3 42b	10 07a	1.5	1.7	1.3	1.6	0.4	0.3	.....	0.5	0.8	0.8	5.0
24	1 40	8 20	1 58b	8 01a	1.4	1.6	1.2	1.5	0.4	0.3	.....	0.5	0.7	0.7	5.0
25	2 25	9 05	2 48b	8 46a	1.4	1.6	1.2	1.5	0.4	0.3	.....	0.5	0.7	0.7	5.0
26	2 39	9 06	3 01b	8 49a	1.3	1.4	1.1	1.6	0.3	0.4	18 35	0.6	0.6	0.8	5.0
27	3 23	10 18	3 36b	9 59a	1.7	2.0	1.4	1.9	0.5	0.3	.....	0.6	0.8	0.9	5.0
28	4 25	11 00	4 37b	10 43a	1.9	2.2	1.6	2.1	0.5	0.3	.....	0.6	1.0	1.0	5.5
29	3 55	10 50	4 08b	10 31a	1.7	2.0	1.4	1.9	0.5	0.3	.....	0.6	0.8	0.9	5.0
30	4 40	11 40	4 52b	11 22a	1.8	2.1	1.5	2.0	0.5	0.3	.....	0.6	0.9	0.9	5.5
31	3 15	10 10	3 27b	9 52a	1.5	1.7	1.3	1.6	0.4	0.3	.....	0.5	0.8	0.8	5.0
32	3 20	9 40	3 35b	9 17a	1.2	1.4	1.0	1.3	0.4	0.3	.....	0.5	0.6	0.6	5.0
33	3 30	9 50	3 47b	9 25a	1.1	1.3	0.9	1.2	0.4	0.3	.....	0.5	0.6	0.6	5.5
34	4 00	11 00	4 14b	9 39a	1.3	1.5	1.1	1.4	0.4	0.3	.....	0.5	0.6	0.7	5.0
35	3 43	10 05	3 58b	9 43a	1.0	1.2	0.8	1.1	0.4	0.2	.....	0.4	0.5	0.5	5.0
36	4 09	10 33	4 39b	9 48a	0.8	0.9	0.7	1.2	0.5	0.4	19 21	0.6	0.4	0.6	5.0
37	4 00	11 00	4 21b	10 29a	0.7	0.8	0.6	0.8	0.3	0.2	.....	0.4	0.4	0.4	5.0
38	4 10	10 35	4 26b	10 11a	0.9	1.0	0.8	1.0	0.3	0.2	.....	0.4	0.4	0.5	5.0
39	4 39	10 53	4 55b	10 29a	0.9	1.0	0.8	1.0	0.3	0.2	.....	0.4	0.4	0.5	5.0
40	5 00	11 36	5 15b	11 42a	1.2	1.4	1.0	1.3	0.4	0.3	.....	0.5	0.6	0.6	5.5
41	5 06	12 15	5 21b	11 53a	1.0	1.2	0.8	1.1	0.4	0.2	.....	0.4	0.5	0.5	5.0
42	5 50	12 04	6 07b	11 20a	1.1	1.2	0.9	1.6	0.8	0.3	19 40	0.9	0.5	0.7	5.0
43	6 20	0 24	6 32b	0 07b	1.6	1.8	1.3	1.7	0.4	0.3	.....	0.5	0.8	0.8	5.5
44	6 40	0 40	6 53b	0 21b	1.7	2.0	1.4	1.9	0.5	0.3	.....	0.6	0.8	0.9	5.5
45	6 55	0 55	7 07b	0 37b	1.8	2.1	1.5	2.0	0.5	0.3	.....	0.6	0.9	0.9	5.5
46	7 17	1 09	7 28b	0 53b	2.0	2.3	1.7	2.2	0.5	0.3	.....	0.6	1.0	1.0	5.5
47	5 47	0 30	6 02b	0 08b	1.0	1.1	0.8	1.1	0.4	0.2	.....	0.4	0.5	0.5	5.0
48	5 54	0 10	6 47b	0 20b	1.0	1.1	0.8	1.4	0.7	0.3	20 23	0.7	0.5	0.6	5.0
49	6 10	0 33	6 25b	0 11b	1.0	1.1	0.8	1.1	0.4	0.2	.....	0.4	0.5	0.5	5.0
50	6 28	0 42	6 45b	0 22b	1.1	1.3	0.9	1.2	0.4	0.3	.....	0.5	0.6	0.6	5.0
51	6 32	0 46	6 47b	0 23b	1.2	1.5	1.1	1.4	0.4	0.3	.....	0.5	0.6	0.7	5.0
52	6 34	0 48	6 48b	0 24b	1.2	1.4	1.0	1.5	0.4	0.3	21 12	0.5	0.6	0.7	5.5
53	6 50	0 50	7 05b	0 39b	1.2	1.4	1.0	1.4	0.4	0.3	.....	0.5	0.6	0.6	5.5
54	6 54	0 54	7 09b	0 33b	1.2	1.4	1.0	1.4	0.4	0.3	.....	0.5	0.6	0.6	5.5
55	7 21	1 12	7 34b	0 31b	1.2	1.4	1.0	1.8	0.9	0.3	20 56	0.9	0.6	0.8	5.5
56	7 47	1 50	8 00b	1 31b	1.4	1.6	1.2	1.5	0.4	0.3	.....	0.5	0.7	0.7	5.5
57	8 00	2 20	8 11b	1 04b	2.0	2.3	1.7	2.2	0.5	0.3	.....	0.6	1.0	1.0	5.5
58	8 30	3 10	8 41b	2 54b	2.4	2.7	2.0	2.6	0.5	0.4	.....	0.7	1.2	1.3	5.5
59	8 26	2 26	8 36b	1 55b	2.1	2.5	1.8	2.8	1.1	0.3	22 01	1.1	1.1	1.2	6.0
60	8 55	3 30	9 06b	3 15b	2.1	2.4	1.8	2.3	0.5	0.3	.....	0.6	1.0	1.1	6.0
61	9 30	4 30	9 42b	4 22b	1.5	1.7	1.3	1.6	0.4	0.3	.....	0.5	0.8	0.8	6.0
62	9 37	3 52	9 48b	3 36b	2.0	2.3	1.7	2.2	0.5	0.3	.....	0.6	1.0	1.0	6.0
63	10 00	3 10	10 11b	2 55b	2.1	2.4	1.8	2.3	0.5	0.3	.....	0.6	1.0	1.1	6.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	VIRGINIA—continued.										
	Outer Coast.	*North.* ° ′	*West.* ° ′	h. m.			*Time meridian, 75° W.* h. m.	h. m.	*Mean Low Water.* feet.	feet.	
1	Virginia Beach	36 50	75 58	5 04	Old Point Comfort	91	−0 55	−0 38	+0.3	0.0	1.12
2	False Cape Life-Saving Station	36 36	75 53	5 04	Old Point Comfort	91	−1 01	−0 45	+0.2	0.0	1.08
	NORTH CAROLINA.										
3	Currituck Beach Light	36 23	75 50	5 03	Old Point Comfort	91	−1 09	−0 53	+0.3	0.0	1.12
4	Oregon Inlet	35 48	75 32	5 02	Old Point Comfort	91	−1 31	−1 15	+0.2	0.0	1.06
5	New Inlet	35 41	75 26	5 02	Old Point Comfort	91	−1 24	−1 09	+0.3	0.0	1.12
6	Hatteras Inlet	35 12	75 44	5 03	Old Point Comfort	91	−1 42	−1 28	−0.5	0.0	0.80
7	Ocrakoke Inlet	35 04	76 01	5 04	Old Point Comfort	91	−1 45	−1 31	−0.6	0.0	0.76
8	Cape Lookout	34 36	76 31	5 06	Charleston	107	−1 05	−1 04	−1.4	0.0	0.72
9	Beaufort	34 43	76 39	5 07	Charleston	107	−0 12	−0 15	−2.3	0.0	0.54
10	New Topsail Inlet	34 22	77 38	5 11	Charleston	107	−0 39	−0 39	−1.1	0.0	0.78
11	Masonboro Inlet	34 11	77 49	5 11	Charleston	107	−0 27	−0 28	−1.0	0.0	0.80
12	Carolina Beach	34 02	77 53	5 12	Charleston	107	−0 14	−0 16	−0.9	0.0	0.82
	Cape Fear River and Branches.										
13	Bald Head, Cape Fear Light	33 52	78 00	5 12	Charleston	107	−0 02	−0 05	−0.8	0.0	0.84
14	Fort Caswell	33 54	78 01	5 12	Charleston	107	0 00	−0 02	−0.7	0.0	0.86
15	Southport or Smithville	33 55	78 01	5 12	Charleston	107	+0 02	+0 01	−0.6	0.0	0.88
16	Federal Point	33 58	77 56	5 12	Charleston	107	+0 29	+0 42	−1.0	0.0	0.80
17	Reeves Point	34 00	77 57	5 12	Charleston	107	+0 44	+1 05	−1.2	0.0	0.76
18	Orton Point Post Light	34 03	77 56	5 12	Charleston	107	+1 08	+1 41	−1.4	0.0	0.72
19	Campbell Island Post Light	34 07	77 56	5 12	Wilmington	103	−0 52	−1 18	+0.8	0.0	1.32
20	Brunswick River Entrance	34 11	77 58	5 12	Wilmington	103	−0 26	−0 39	+0.4	0.0	1.15
21	Hospital Point Post Light	34 12	77 57	5 12	Wilmington	103	−0 19	−0 29	+0.3	0.0	1.11
22	WILMINGTON	34 14	77 57	5 12	Wilmington	103	0 00	0 00	0.0	0.0	1.00
23	Castle Hayne	34 21	77 56	5 12	Wilmington	103	+2 08	+2 11	−0.9	0.0	0.62
24	Bannermans Bridge	34 35	77 46	5 11	Wilmington	103	−5 48	−6 47	−1.1	0.0	0.53
25	Magnolia Quarry	34 52	78 02	5 12	Wilmington	103	+0 53	+1 11	−0.3	0.0	0.86
26	Point Caswell	34 27	78 11	5 13	Wilmington	103	+4 34	+4 50	−1.6	0.0	0.33
27	White Hall	34 30	78 28	5 14	Wilmington	103	−5 45	−5 37	−1.9	0.0	0.21
	SOUTH CAROLINA.										
28	Little River	33 51	78 34	5 14	Charleston	107	−0 11	−0 15	−0.3	0.0	0.93
29	North Inlet	33 20	79 10	5 17	Charleston	107	−0 13	−0 02	−0.6	0.0	0.88
30	South Island, Winyah Bay	33 16	79 14	5 17	Charleston	107	+0 20	+0 26	−1.6	0.0	0.68
31	Georgetown, Winyah Bay	33 22	79 17	5 17	Charleston	107	+1 16	+2 25	−1.5	0.0	0.70
32	Cape Romain	33 01	79 21	5 17	Charleston	107	−0 24	−0 23	−0.1	0.0	0.97
33	Bull Bay	32 57	79 33	5 18	Charleston	107	−0 17	−0 22	−0.4	0.0	0.91
34	North Jetty, Charleston Har. Entr.	32 44	79 48	5 19	Charleston	107	−0 35	−0 46	+0.1	0.0	1.00
35	Fort Moultrie	32 45	79 52	5 19	Charleston	107	−0 13	−0 26	+0.5	0.0	1.09
36	Fort Sumter	32 45	79 52	5 19	Charleston	107	−0 11	−0 24	+0.3	0.0	1.05
37	Fort Johnson	32 45	79 54	5 20	Charleston	107	−0 06	−0 18	+0.6	0.0	1.11
38	Castle Pinckney Light	32 46	79 55	5 20	Charleston	107	−0 01	−0 01	+0.1	0.0	1.01
39	CHARLESTON, Custom-House Whf.	32 46	79 56	5 20	Charleston	107	0 00	0 00	0.0	0.0	1.00
40	Legareville, Stono River	32 40	80 00	5 20	Charleston	107	+0 05	−0 15	−0.1	0.0	0.97
41	North Edisto River Entrance	32 34	80 11	5 21	Charleston	107	−0 11	−0 26	+0.7	0.0	1.13
42	Bluff Point, Wadmelaw River	32 39	80 15	5 21	Charleston	107	+0 21	+0 31	+1.4	0.0	1.26
43	S. Edisto R. Entr., St. Helena Sd.	32 29	80 20	5 21	Savannah Entr.	111	0 00	−0 09	−0.8	0.0	0.89
44	Salt Landing, South Edisto River	32 34	80 23	5 22	Savannah Entr.	111	+0 24	+0 37	−0.7	0.0	0.90
45	Coosaw R., Mining Co.'s Wharf	32 31	80 40	5 23	Savannah Entr.	111	+1 40	+1 51	+0.7	0.0	1.11
46	Hunting I. Light, St. Helena Sd.	32 23	80 25	5 22	Savannah Entr.	111	+0 03	−0 11	−0.8	0.0	0.89
47	Bell Buoy, Port Royal Entrance	32 08	80 35	5 22	Savannah Entr.	111	−0 21	−0 25	−0.4	0.0	0.94
48	Hilton Head, Port Royal Sound	32 14	80 40	5 23	Savannah Entr.	111	+0 02	+0 01	−0.5	0.0	0.93
49	Beaufort River Entrance	32 17	80 39	5 23	Savannah Entr.	111	+0 13	+0 03	−0.1	0.0	0.99
50	Dry Docks, Beaufort River	32 21	80 40	5 23	Savannah Entr.	111	+0 41	+0 31	+0.2	0.0	1.04
51	Port Royal, Battery Creek	32 22	80 41	5 23	Savannah Entr.	111	+0 47	+0 47	+0.3	0.0	1.05
52	Beaufort, Beaufort River	32 26	80 40	5 23	Savannah Entr.	111	+1 00	+1 02	+0.5	0.0	1.08
53	Eutaw Creek, Broad River	32 24	80 48	5 23	Savannah Entr.	111	+0 55	+0 56	+0.1	0.0	1.02
54	Braddock Point, Calibogue Sound	32 07	80 49	5 23	Savannah Entr.	111	+0 05	+0 06	0.0	0.0	1.01
	GEORGIA.										
55	SAVANNAH ENTR., Tybee I. Light	32 02	80 51	5 23	Savannah Entr.	111	0 00	0 00	0.0	0.0	1.00
56	Fort Pulaski	32 02	80 53	5 24	Savannah Entr.	111	+0 09	+0 24	+0.1	0.0	1.02
57	Oglethorpe, Savannah River	32 05	81 02	5 24	Savannah Entr.	111	+0 50	+0 39	−0.2	0.0	0.98
58	Savannah, Savannah River	32 05	81 05	5 24	Savannah Entr.	111	+1 04	+2 04	−0.3	0.0	0.96
59	Wassaw Sound	31 55	80 58	5 24	Savannah Entr.	111	+0 15	+0 05	0.0	0.0	1.01

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic. (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	7 50	1 40	7 51a	1 24a	2.8	3.3	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
2	7 44	1 33	7 45a	1 17a	2.7	3.2	2.1	2.9	0.7	0.1	.....	0.7	1.4	1.4	4.0
3	7 37	1 26	7 38a	1 10a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
4	7 16	1 05	7 17a	0 49a	2.7	3.2	2.1	2.9	0.7	0.1	.....	0.7	1.4	1.4	4.0
5	7 23	1 11	7 24a	0 55a	2.8	3.4	2.2	3.0	0.7	0.1	.....	0.7	1.4	1.4	4.0
6	7 04	0 51	7 06a	0 32a	2.0	2.4	1.6	2.2	0.6	0.1	.....	0.6	1.0	1.0	3.5
7	7 00	0 45	7 06a	0 32a	1.9	2.2	1.5	2.1	0.6	0.1	.....	0.6	1.0	1.0	3.0
8	6 29	0 20	6 34a	0 05a	3.7	4.4	3.0	4.3	0.9	0.3	.....	1.0	1.8	2.0	2.5
9	7 21	1 08	7 27a	0 50a	2.8	3.3	2.3	3.3	0.8	0.3	.....	0.9	1.4	1.5	2.5
10	6 50	0 40	6 55a	0 26a	4.0	4.7	3.2	4.7	1.0	0.4	.....	1.0	2.0	2.2	2.0
11	7 02	0 51	7 07a	0 37a	4.1	4.8	3.3	4.8	1.0	0.4	.....	1.0	2.0	2.2	2.0
12	7 14	1 02	7 19a	0 48a	4.2	4.9	3.4	4.9	1.0	0.4	.....	1.0	2.0	2.2	1.5
13	7 26	1 13	7 31a	0 59a	4.3	5.0	3.5	5.0	1.0	0.4	.....	1.0	2.1	2.3	1.5
14	7 28	1 16	7 33a	1 06a	4.4	5.1	3.6	5.1	1.0	0.4	.....	1.0	2.2	2.3	1.5
15	7 30	1 19	7 34a	1 13a	4.5	5.3	3.7	5.2	1.0	0.4	.....	1.1	2.2	2.4	1.5
16	7 57	2 00	8 00a	1 58a	4.1	4.8	3.3	4.8	1.0	0.4	.....	1.0	2.0	2.2	1.5
17	8 12	2 23	8 14a	2 25a	3.9	4.6	3.1	4.6	1.0	0.4	.....	1.0	2.0	2.1	1.5
18	8 36	2 59	8 37a	3 05a	3.7	4.4	3.0	4.3	0.9	0.3	.....	1.0	1.8	2.0	1.5
19	9 00	3 36	9 00a	3 46a	3.2	3.5	2.8	3.7	1.0	0.2	.....	1.0	1.6	1.8	1.5
20	9 26	4 15	9 25a	4 30a	2.8	3.1	2.5	3.2	0.9	0.1	.....	0.9	1.4	1.6	1.5
21	9 33	4 25	9 31a	4 42a	2.7	3.0	2.4	3.1	0.9	0.1	.....	0.9	1.4	1.5	1.5
22	9 52	4 54	9 50a	5 16a	2.4	2.7	2.2	2.8	0.9	0.1	9 45	0.9	1.2	1.2	2.0
23	12 00	7 05	11 57b	7 34a	1.5	1.7	1.3	1.8	0.7	0.1	.....	0.7	0.8	0.9	2.0
24	4 05	11 40	4 02b	12 09a	1.3	1.4	1.2	1.6	0.6	0.1	.....	0.6	0.6	0.8	2.0
25	10 45	6 05	10 43b	6 29b	2.1	2.3	1.9	2.5	0.8	0.1	.....	0.8	1.0	1.3	2.0
26	2 00	9 33	1 56b	10 11a	0.8	0.9	0.7	1.1	0.5	0.1	.....	0.5	0.4	0.5	1.5
27	4 05	11 40	4 00b	12 30a	0.5	0.6	0.4	0.7	0.4	0.0	.....	0.4	0.2	0.3	1.5
28	7 15	1 01	7 19a	0 48a	4.8	5.7	3.9	5.5	1.1	0.4	.....	1.1	2.4	2.5	1.0
29	7 10	1 11	7 15a	0 58a	4.5	5.3	3.7	5.2	1.0	0.4	.....	1.1	2.2	2.4	0.5
30	7 43	1 39	7 49a	1 23a	3.5	4.1	2.8	4.1	0.9	0.3	.....	1.0	1.8	1.9	0.5
31	8 39	3 38	8 44a	1 22a	3.6	4.3	2.9	4.2	0.9	0.3	.....	1.0	1.8	1.9	0.5
32	6 59	0 50	7 03a	0 38a	5.0	5.9	4.1	5.7	1.1	0.4	.....	1.1	2.5	2.7	0.5
33	7 05	0 50	7 09a	0 37a	4.7	5.6	3.8	5.4	1.0	0.4	.....	1.1	2.4	2.5	0.5
34	6 46	0 25	6 50a	0 13a	5.2	6.1	4.2	5.9	1.1	0.4	.....	1.2	2.6	2.8	0.0
35	7 08	0 45	7 12a	0 33a	5.6	6.6	4.5	6.3	1.1	0.4	.....	1.2	2.8	3.0	0.0
36	7 10	0 47	7 14a	0 35a	5.4	6.4	4.4	6.1	1.1	0.4	.....	1.2	2.7	2.9	0.0
37	7 14	0 52	7 18a	0 40a	5.7	6.7	4.6	6.4	1.1	0.4	.....	1.2	2.8	3.0	0.0
38	7 19	1 09	7 24a	0 56a	5.2	6.1	4.2	5.9	1.1	0.4	.....	1.2	2.6	2.8	0.0
39	7 20	1 10	7 24a	0 57a	5.1	6.0	4.2	5.8	1.1	0.4	8 39	1.2	2.6	2.8	0.0
40	7 25	0 55	7 29a	0 45a	5.0	5.9	4.1	5.7	1.1	0.4	.....	1.1	2.5	2.7	0.0
41	7 08	0 53	7 12a	0 43a	5.8	6.8	4.7	6.6	1.2	0.4	.....	1.2	2.9	3.1	0.0
42	7 40	1 40	7 44a	1 29a	6.5	7.7	5.3	7.3	1.2	0.5	.....	1.3	3.2	3.5	0.0
43	7 12	0 57	7 14a	0 47a	6.0	7.0	4.9	6.5	1.1	0.3	.....	1.1	3.0	3.0	0.0
44	7 35	1 42	7 37a	1 32a	6.1	7.1	4.9	6.6	1.1	0.3	.....	1.1	3.0	3.1	0.0
45	8 50	2 55	8 52a	2 46a	7.5	8.8	6.1	8.0	1.2	0.3	.....	1.3	3.8	3.8	0.5 E.
46	7 14	0 54	7 16a	0 44a	6.0	7.0	4.9	6.5	1.1	0.3	.....	1.1	3.0	3.0	0.0
47	6 50	0 40	6 52a	0 29a	6.4	7.5	5.2	6.8	1.1	0.3	.....	1.2	3.2	3.2	0.5 E.
48	7 12	1 05	7 14a	0 54a	6.3	7.4	5.1	6.8	1.1	0.3	.....	1.2	3.2	3.2	0.5 E.
49	7 23	1 07	7 25a	0 57a	6.7	7.8	5.4	7.2	1.2	0.3	.....	1.2	3.4	3.4	0.5 E.
50	7 51	1 35	7 53a	1 25a	7.0	8.2	5.7	7.5	1.2	0.3	.....	1.2	3.5	3.5	0.5 E.
51	7 57	1 51	7 59a	1 41a	7.1	8.3	5.8	7.6	1.2	0.3	.....	1.2	3.6	3.6	0.5 E.
52	8 10	2 06	8 12a	1 57a	7.3	8.5	5.9	7.8	1.2	0.3	.....	1.2	3.6	3.7	0.5 E.
53	8 05	2 00	8 07a	1 50a	6.9	8.1	5.6	7.4	1.2	0.3	.....	1.2	3.4	3.5	0.5 E.
54	7 15	1 10	7 17a	1 00a	6.8	8.0	5.5	7.3	1.2	0.3	.....	1.2	3.4	3.4	0.5 E.
															East.
55	7 10	1 04	7 12a	0 54a	6.8	7.9	5.5	7.3	1.2	0.3	7 56	1.2	3.4	3.4	0.5
56	7 18	1 27	7 20a	1 17a	6.9	8.1	5.6	7.4	1.2	0.3	.....	1.2	3.4	3.5	0.5
57	7 59	2 42	8 01a	2 32a	6.6	7.7	5.4	7.1	1.2	0.3	.....	1.2	3.3	3.3	0.5
58	8 13	3 07	8 15a	2 57a	6.5	7.6	5.3	7.0	1.2	0.3	.....	1.2	3.2	3.3	0.5
59	7 24	1 08	7 26a	0 58a	6.8	8.0	5.5	7.3	1.2	0.3	.....	1.2	3.4	3.4	0.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	GEORGIA—continued.	North.	West.				Time meridian, 75° W.		Mean Low Water.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Ossabaw Sound	31 50	81 05	5 24	Savannah Entr...	111	+0 10	+0 26	−0.2	0.0	0.98
2	St. Catherine Sound	31 43	81 08	5 25	Savannah Entr...	111	+0 29	+0 31	+0.5	0.0	1.08
3	Sapelo Sound	31 32	81 13	5 25	Savannah Entr...	111	+0 19	+0 05	+0.2	0.0	1.04
4	Sapelo Light, Doboy Sound	31 23	81 17	5 25	Savannah Entr...	111	+0 22	+0 22	+0.4	0.0	1.07
5	Atwood River, Doboy Sound	31 27	81 21	5 25	Savannah Entr...	111	+0 32	+0 32	+0.4	0.0	1.07
6	Altamaha Sound	31 21	81 26	5 26	Savannah Entr...	111	+0 33	+0 43	−0.4	0.0	0.95
7	Brunswick Outer Bar	31 06	81 19	5 25	Savannah Entr...	111	+0 10	+0 11	−0.5	0.0	0.93
8	St. Simon Light	31 08	81 24	5 26	Savannah Entr...	111	+0 23	+0 26	−0.4	0.0	0.95
9	Brunswick	31 09	81 30	5 26	Savannah Entr...	111	+0 53	+0 56	−0.1	0.0	0.99
10	Jekyl Island	31 04	81 25	5 26	Savannah Entr...	111	+0 44	+0 39	0.0	0.0	1.01
11	St. Andrew Sound	31 00	81 28	5 26	Savannah Entr...	111	+0 34	+0 37	0.0	0.0	1.01
	FLORIDA.										
	Eastern coast.						Time meridian, 90° W.				
12	Fernandina, Fort Clinch	30 41	81 28	5 26	Fernandina	115	−0 14	−0 08	0.0	0.0	0.98
13	FERNANDINA, Dade St.	30 41	81 28	5 26	Fernandina	115	0 00	0 00	0.0	0.0	1.00
14	Nassau Sound	30 31	81 27	5 26	Fernandina	115	−0 19	−0 10	−0.6	0.0	0.90
15	Fort George Inlet	30 26	81 26	5 26	Fernandina	115	−0 17	−0 02	−0.6	0.0	0.90
16	St. Johns River, South Jetty	30 24	81 25	5 26	Fernandina	115	−0 24	−0 09	−1.4	0.0	0.77
17	Mayport Mills, St. Johns River	30 23	81 26	5 26	Fernandina	115	−0 15	−0 01	−1.6	0.0	0.72
18	Hopkins, St. Johns River	30 23	81 30	5 26	Old Point Comfort	91	−1 20	−0 58	+0.5	0.0	1.20
19	Dame Point, St. Johns River	30 23	81 33	5 26	Old Point Comfort	91	−0 53	−0 34	−0.7	0.0	0.72
20	Reddie Point, St. Johns River	30 23	81 37	5 26	Old Point Comfort	91	−0 46	−0 26	−1.1	0.0	0.56
21	Jacksonville, St. Johns River	30 20	81 39	5 27	Old Point Comfort	91	−0 29	−0 14	−1.5	0.0	0.40
22	Mandarin, St. Johns River	30 10	81 39	5 27	Old Point Comfort	91	+0 59	+1 01	−1.8	0.0	0.28
23	Greencove Springs, St. Johns River	29 59	81 41	5 27	Old Point Comfort	91	+2 19	+2 16	−1.9	0.0	0.24
24	Tocoi, St. Johns River	29 51	81 33	5 26	Old Point Comfort	91	+3 43	+3 30	−1.7	0.0	0.32
25	Palatka, St. Johns River	29 39	81 38	5 27	Old Point Comfort	91	+5 21	+5 06	−1.4	0.0	0.44
26	St. Augustine Light	29 53	81 17	5 25	Charleston	107	−0 03	−0 05	−0.6	0.0	0.88
27	St. Augustine	29 54	81 18	5 25	Charleston	107	+0 06	+0 06	−0.9	0.0	0.82
28	Matanzas Inlet	29 42	80 13	5 25	Old Point Comfort	91	−1 48	−1 11	0.0	0.0	1.00
29	Mosquito Inlet Light	29 05	80 56	5 24	Old Point Comfort	91	−1 41	−1 10	−0.2	0.0	0.92
30	Cape Canaveral Light	28 28	80 32	5 22	Charleston	107	−0 18	−0 16	−0.1	0.0	0.97
31	Indian River Inlet	27 30	80 18	5 21	Key West	119	−1 56	−1 17	+0.5	0.0	1.42
32	Jupiter Inlet Light	26 57	80 05	5 20	Key West	119	−1 27	−0 43	+0.3	0.0	1.25
33	Lake Worth Inlet	26 48	80 02	5 20	Key West	119	−1 24	−0 39	+0.4	0.0	1.33
34	Hillsboro Inlet	26 15	80 05	5 20	Key West	119	−1 07	−0 20	+0.5	0.0	1.42
35	Miami River, Key Biscayne Bay	25 46	80 11	5 21	Key West	119	+0 04	+1 14	−0.1	0.0	0.92
	Florida Reefs.										
36	Cape Florida, Key Biscayne	25 40	80 09	5 21	Key West	119	−1 02	−0 13	+0.5	0.0	1.41
37	Fowey Rocks Light	25 35	80 06	5 20	Key West	119	−1 07	−0 27	+0.8	0.0	1.65
38	Point Elizabeth, Key Largo	25 14	80 19	5 21	Key West	119	−1 01	−0 24	+1.1	0.0	1.42
39	Carysport Reef Light	25 13	80 13	5 21	Key West	119	−1 05	−0 34	+0.9	0.0	1.74
40	Aligator Reef Light	24 51	80 37	5 22	Key West	119	−1 03	−0 41	+0.8	0.0	1.65
41	Indian Key	24 53	80 41	5 23	Key West	119	−1 01	−0 42	+0.6	0.0	1.49
42	Tom Harbor Keys	24 46	80 56	5 24	Key West	119	−1 11	−0 53	+0.4	0.0	1.32
43	Bamboo Key	24 45	81 00	5 24	Key West	119	+5 21	+6 23	0.0	0.0	1.08
44	Knights Key	24 42	81 07	5 24	Key West	119	−0 56	−0 31	+0.2	0.0	1.16
45	Sombrero Key Light	24 38	81 07	5 24	Key West	119	−0 59	−0 34	+0.3	0.0	1.24
46	Bahia Honda, south side	24 40	81 16	5 25	Key West	119	−1 06	−0 36	+0.3	0.0	1.24
47	American Shoal Light	24 31	81 31	5 26	Key West	119	−0 49	−0 24	+0.4	0.0	1.32
48	Sand Key Light	24 27	81 53	5 28	Key West	119	−0 39	−0 15	0.0	0.0	0.99
49	KEY WEST, Fort Taylor	24 33	81 48	5 27	Key West	119	0 00	0 00	0.0	0.0	1.00
50	Northwest Passage Light	24 37	81 54	5 28	Key West	119	+2 00	+2 30	+1.3	0.0	2.09
51	Marquesas Keys	24 33	82 07	5 28	Key West	119	−0 09	+0 21	0.0	0.0	1.00
52	Rebecca Shoal Light	24 35	82 35	5 30	Key West	119	+0 13	+0 39	−0.1	0.0	0.92
53	Tortugas Harbor Light	24 38	82 53	5 32	Key West	119	+0 29	+0 50	−0.1	0.0	0.92
54	Content Keys	24 48	81 30	5 26	Key West	119	+2 07	+3 00	+2.4	0.0	3.00
	Gulf of Mexico.										
55	Cape Sable, East Cape	25 07	81 05	5 24	Key West	119	+4 07	+4 47	+1.7	0.0	2.42
56	Lossmans River	25 32	81 12	5 25	Key West	119	+3 49	+4 30	+2.5	0.0	3.08
57	Pavilion Key	25 42	81 21	5 25	Key West	119	+3 39	+4 17	+2.3	0.0	2.92
58	Round Key	25 50	81 31	5 26	Key West	119	+3 29	+4 09	+2.2	0.0	2.83
59	Cape Romano	25 51	81 41	5 27	Key West	119	+3 20	+4 00	+1.4	0.0	2.17

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	7 19	1 29	7 21a	1 19a	6.6	7.7	5.4	7.1	1.2	0.3	.....	1.2	3.3	3.3	1.0
2	7 37	1 38	7 39a	1 24a	7.3	8.5	5.9	7.8	1.2	0.3	.....	1.2	3.6	3.7	0.5
3	7 27	1 07	7 29a	0 57a	7.0	8.2	5.7	7.5	1.2	0.3	.....	1.2	3.5	3.5	1.0
4	7 30	1 24	7 32a	1 14a	7.2	8.4	5.8	7.7	1.2	0.3	.....	1.2	3.6	3.6	1.0
5	7 40	1 34	7 42a	1 24a	7.2	8.4	5.8	7.7	1.2	0.3	.....	1.2	3.6	3.6	1.0
6	7 40	1 44	7 42a	1 33a	6.4	7.5	5.2	6.9	1.1	0.3	.....	1.2	3.2	3.2	1.0
7	7 18	1 13	7 20a	1 07a	6.3	7.5	5.2	6.7	1.2	0.3	.....	1.2	3.1	3.1	1.0
8	7 30	1 27	7 33a	1 13a	6.4	7.5	5.3	6.7	1.1	0.2	.....	1.2	3.2	3.1	1.0
9	8 00	1 57	8 02a	1 47a	6.7	7.8	5.4	7.2	1.2	0.3	.....	1.2	3.4	3.4	1.0
10	7 51	1 40	7 53a	1 30a	6.8	8.0	5.5	7.3	1.2	0.3	.....	1.2	3.4	3.4	1.0
11	7 41	1 38	7 43a	1 28a	6.8	8.0	5.5	7.3	1.2	0.3	.....	1.2	3.4	3.4	1.0
12	7 46	1 34	7 48a	1 22a	5.9	7.0	4.8	6.4	1.2	0.2	8 25	1.2	3.0	3.0	1.0
13	8 00	1 42	8 02a	1 30a	6.0	7.0	4.9	6.4	1.2	0.3	8 46	1.2	3.0	3.0	1.0
14	7 41	1 32	7 43a	1 20a	5.4	6.3	4.4	5.8	1.1	0.2	.....	1.1	2.7	2.7	1.0
15	7 43	1 40	7 45a	1 28a	5.4	6.3	4.4	5.8	1.1	0.2	.....	1.1	2.7	2.7	1.0
16	7 36	1 33	7 38a	1 21a	4.6	5.4	3.7	4.9	1.0	0.2	.....	1.0	2.3	2.3	1.0
17	7 45	1 41	7 47a	1 28a	4.3	5.0	3.5	4.6	1.0	0.2	.....	1.0	2.2	2.2	1.0
18	8 02	1 57	8 04a	1 40a	3.0	3.5	2.4	3.3	0.9	0.1	.....	0.9	1.5	1.5	1.0
19	8 29	2 21	8 32a	2 02a	1.8	2.1	1.5	2.0	0.6	0.1	.....	0.6	0.9	0.9	1.0
20	8 36	2 29	8 40a	2 05a	1.4	1.6	1.1	1.6	0.6	0.1	.....	0.6	0.7	0.7	1.0
21	8 52	2 40	8 56a	2 22a	1.0	1.2	0.8	1.2	0.5	0.1	.....	0.5	0.5	0.5	1.0
22	10 20	3 55	10 24a	3 38a	0.7	0.9	0.6	0.9	0.4	0.1	.....	0.4	0.4	0.4	1.0
23	11 40	5 10	11 44a	4 55a	0.6	0.8	0.5	0.8	0.3	0.1	.....	0.3	0.4	0.4	1.0
24	0 40	6 25	0 44a	6 08a	0.8	1.0	0.7	1.1	0.4	0.1	.....	0.4	0.4	0.4	1.0
25	2 17	8 00	2 22a	7 42a	1.1	1.3	0.9	1.3	0.5	0.1	.....	0.5	0.6	0.6	1.0
26	8 12	2 00	8 14a	1 47a	4.5	5.3	3.6	4.8	1.0	0.2	.....	1.0	2.2	2.3	1.0
27	8 21	2 11	8 23a	1 57a	4.2	5.0	3.4	4.5	1.0	0.2	.....	1.0	2.1	2.1	1.0
28	7 35	1 45	7 38a	1 27a	2.5	3.0	2.0	2.7	0.7	0.1	.....	0.8	1.2	1.3	1.0
29	7 43	1 47	7 46a	1 29a	2.3	2.7	1.9	2.5	0.7	0.1	.....	0.7	1.2	1.2	1.0
30	8 00	1 52	8 02a	1 39a	5.0	5.9	4.0	5.4	1.1	0.2	.....	1.1	2.5	2.5	1.0
31	7 30	1 25	7 33a	1 05a	1.7	2.0	1.4	1.9	0.6	0.1	.....	0.6	0.8	0.9	1.0
32	8 00	2 00	8 04a	1 37a	1.5	1.8	1.2	1.7	0.6	0.1	.....	0.6	0.8	0.8	1.0
33	8 03	2 04	8 06a	1 42a	1.6	1.9	1.3	1.8	0.6	0.1	.....	0.6	0.8	0.8	1.5
34	8 20	2 23	8 23a	2 03a	1.7	2.0	1.4	1.9	0.6	0.1	.....	0.6	0.8	0.9	1.5
35	9 30	3 56	9 34a	3 30a	1.1	1.3	0.9	1.3	0.5	0.1	.....	0.5	0.6	0.6	1.5
36	8 24	2 29	8 12b	3 10a	1.7	2.2	1.1	2.2	1.0	0.3	.....	1.1	0.8	1.0	1.5
37	8 20	2 16	8 09b	2 54a	2.0	2.6	1.3	2.6	1.1	0.4	.....	1.2	1.0	1.2	1.5
38	8 25	2 18	8 14b	2 54a	2.3	2.9	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	1.5
39	8 21	2 08	8 10b	2 44a	2.1	2.7	1.4	2.7	1.1	0.4	.....	1.2	1.0	1.2	1.5
40	8 22	2 00	8 11b	2 38a	2.0	2.6	1.3	2.6	1.1	0.4	.....	1.2	1.0	1.2	2.0
41	8 23	1 58	8 11b	2 36a	1.8	2.3	1.2	2.4	1.1	0.3	.....	1.1	0.9	1.0	2.0
42	8 12	1 46	7 59b	2 29a	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	2.0
43	2 19	8 56	2 04a	9 45b	1.3	1.7	0.9	1.8	0.9	0.3	.....	1.0	0.6	0.8	2.0
44	8 27	2 08	8 14b	2 53a	1.4	1.8	0.9	1.9	0.9	0.3	.....	1.0	0.7	0.8	2.0
45	8 24	2 05	8 11b	2 47a	1.5	1.9	1.0	2.0	1.0	0.3	.....	1.0	0.8	0.9	2.0
46	8 16	2 02	8 03b	2 44a	1.5	1.9	1.0	2.0	1.0	0.3	.....	1.0	0.8	0.9	2.0
47	8 32	2 13	8 19b	2 56a	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	2.0
48	8 40	2 20	8 26b	3 07a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	2.0
49	9 20	2 36	8 44b	3 22a	1.2	1.6	0.9	1.9	0.9	0.6	18 43	1.2	0.6	0.9	2.0
50	11 19	5 05	11 00b	5 33a	2.6	3.2	1.7	3.1	1.2	0.4	.....	1.3	1.2	1.4	2.5
51	9 10	2 56	8 56b	3 43a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	2.5
52	9 30	3 12	8 37b	4 02a	1.1	1.4	0.7	2.1	1.0	1.0	.....	1.5	0.6	1.0	2.5
53	9 44	3 21	8 47b	4 14a	1.1	1.4	0.8	2.1	1.0	1.0	18 41	1.5	0.6	1.1	2.5
54	11 28	5 37	11 20b	6 05a	3.6	4.6	2.4	4.4	1.5	0.5	.....	1.6	1.8	2.0	2.0
55	1 05	7 26	0 56a	7 56a	2.9	3.7	1.9	3.6	1.3	0.4	.....	1.4	1.4	1.6	2.0
56	0 46	7 08	0 38a	7 34a	3.7	4.7	2.5	4.5	1.5	0.5	.....	1.6	1.8	2.0	2.0
57	0 36	6 55	0 27a	7 23a	3.5	4.5	2.3	4.3	1.5	0.5	.....	1.6	1.8	2.0	2.0
58	0 25	6 46	0 17a	7 14a	3.4	4.4	2.3	4.2	1.5	0.5	.....	1.5	1.7	1.9	2.0
59	0 15	6 36	0 05a	7 10a	2.6	3.3	1.7	3.3	1.3	0.4	.....	1.4	1.3	1.5	2.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (East Coast)—Continued.										
	FLORIDA—continued.										
	Gulf of Mexico—Continued.	*North.*	*West.*				*Time meridian. 90° W.*		*Mean Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Big Marco Pass	25 58	81 45	5 27	Key West	119	+3 10	+3 49	+1.1	0.0	1.92
2	Sanibel I. Light, San Carlos Entr	26 27	82 01	5 28	Key West	119	+2 58	+3 35	+0.6	0.0	1.49
3	Punta Rasa, San Carlos Bay	26 29	82 00	5 28	Key West	119	+3 00	+3 37	+0.4	0.0	1.82
4	Boca Grande, Charlotte Harbor	26 43	82 16	5 29	Key West	119	+3 49	+3 45	−0.1	0.0	0.92
5	Punta Gorda, Charlotte Harbor	26 55	82 05	5 28	Key West	119	+5 06	+5 05	+0.2	0.0	1.16
6	Sarasota Point	27 17	82 34	5 30	Halifax	51	+4 00	+3 11	−3.2	−0.4	0.35
7	Egmont Key Light, Tampa Bay	27 36	82 46	5 31	Halifax	51	+3 18	+2 41	−3.4	−0.4	0.33
8	Manatee River Entr., Tampa Bay	27 32	82 39	5 31	Halifax	51	+3 41	+2 54	−3.2	−0.4	0.37
9	St. Petersburg, Tampa Bay	27 46	82 38	5 31	Halifax	51	+4 14	+4 22	−2.8	−0.4	0.47
10	Tampa, Hillsboro Bay, Tampa Bay	27 57	82 27	5 30	Halifax	51	+5 30	+6 23	−2.6	−0.4	0.51
11	Dunedin, St. Josephs Sound	28 01	82 48	5 31	Halifax	51	+4 01	+3 54	−3.0	−0.4	0.42
12	Anclote Keys Light	28 10	82 51	5 31	Halifax	51	+3 06	+2 39	−2.8	−0.4	0.47
13	Bayport	28 32	82 39	5 31	Halifax	51	+4 45	+5 10	−2.4	−0.4	0.56
14	Cedar Keys	29 08	83 02	5 32	Halifax	51	+5 05	+4 48	−2.4	−0.4	0.56
15	Suwanee River Entrance	29 17	83 09	5 33	Halifax	51	+4 41	+4 22	−2.4	−0.4	0.53
16	Pepperfish Keys	29 30	83 22	5 33	Halifax	51	+4 23	+3 56	−2.7	−0.4	0.49
17	Steinhatchee River, Deadman Bay	29 40	83 24	5 34	Halifax	51	+5 14	+4 46	−2.8	−0.4	0.47
18	Point Edward	29 44	83 32	5 34	Halifax	51	+5 04	+4 03	−2.8	−0.4	0.44
19	Rock Island	29 58	83 50	5 35	Halifax	51	+4 43	+4 11	−2.4	−0.4	0.53
20	Ocilla River Entrance	30 05	84 00	5 36	Halifax	51	+5 16	+4 44	−2.4	−0.4	0.56
21	St. Marks Light, Apalachee Bay	30 04	84 11	5 37	Halifax	51	+5 46	+5 26	−2.3	−0.4	0.58
22	St. Marks, St. Marks River	30 09	84 12	5 37	Halifax	51	+6 17	+6 10	−2.8	−0.4	0.47
23	Ocklockonee Point	29 58	84 20	5 37	Halifax	51	+5 17	+4 35	−2.4	−0.4	0.53
24	Dog Island, St. Georges Sound	29 47	84 40	5 39	Galveston	123	+3 38	−1 02	+1.1	−0.3	1.93
25	Apalachicola Bay	29 43	84 59	5 40	Galveston	123	+2 49	−1 18	+0.7	−0.3	1.67
26	St. Vincents Island, West Pass	29 38	85 06	5 40	Galveston	123	+2 10	−1 42	+0.6	−0.2	1.53
27	Cape San Blas	29 40	85 22	5 41	Galveston	123	+1 48	−1 53	+0.4	−0.2	1.40
28	St. Josephs, St. Josephs Bay	29 48	85 18	5 41	Galveston	123	+2 13	−1 54	+0.4	−0.2	1.47
29	St. Andrews, St. Andrews Bay	30 10	85 41	5 43	Galveston	123	+2 15	−1 41	+0.4	−0.2	1.33
30	East Pass, Choctawhatchee Bay	30 23	86 29	5 46	Galveston	123	+2 02	−1 20	+0.2	−0.2	1.27
31	Fort Pickens, Pensacola Bay	30 20	87 17	5 49	Galveston	123	+1 57	−1 55	0.0	−0.2	1.07
32	Warrington Navy Yd., Pensacola B.	30 21	87 16	5 49	Galveston	123	+2 02	−1 54	0.0	−0.2	1.13
33	Pensacola, Pensacola Bay	30 24	87 13	5 49	Galveston	123	+2 24	−1 56	+0.2	−0.2	1.20
34	Bohemia, Escambia B., Pensacola B	30 29	87 10	5 49	Galveston	123	+2 49	−1 11	0.0	−0.2	1.13
	ALABAMA.										
35	Perdido Entrance, Alabama Point	30 17	87 33	5 50	Galveston	123	+2 12	−1 34	+0.4	−0.2	1.33
36	Mobile Point Light, Mobile Bay	30 14	88 01	5 52	Galveston	123	+1 55	−1 53	−0.2	−0.2	1.00
37	Great Point Clear, Mobile Bay	30 29	87 56	5 52	Galveston	123	+4 11	−0 23	+0.8	−0.2	1.67
38	Mobile, Mobile River	30 41	88 02	5 52	Galveston	123	+4 49	+0 13	+0.4	−0.2	1.40
	MISSISSIPPI.										
39	Horn Island Light	30 13	88 32	5 54	Galveston	123	+2 51	−0 55	+0.4	−0.2	1.47
40	Pascagoula Light	30 21	88 34	5 54	Galveston	123	+1 30	−2 43	+0.5	−0.3	1.53
41	Biloxi Light	30 24	88 54	5 56	Galveston	123	+2 34	−2 21	+0.5	−0.3	1.53
42	Cat Island Light	30 14	89 09	5 57	Galveston	123	+3 05	−2 01	+0.4	−0.2	1.40
	LOUISIANA.										
43	Lake Borgne, The Rigolets	30 09	89 38	5 59	Galveston	123	+4 43	+2 39	−0.2	−0.0	0.93
44	Chandeleur Light	30 03	88 52	5 55	Galveston	123	+1 57	−2 56	+0.2	−0.2	1.20
45	Pass a Loutre Light, Mississippi R	29 12	89 02	5 56	Galveston	123	+1 05	−2 58	0.0	−0.2	1.07
46	Port Eads, South Pass, Miss. R	29 01	89 10	5 57	Galveston	123	+0 56	−3 24	0.0	−0.2	1.13
47	Southwest Pass Light, Miss. R	28 58	89 24	5 58	Galveston	123	+1 04	−3 31	+0.2	−0.2	1.27
48	Head of Passes Lt., Mississippi R	29 09	89 15	5 57	Galveston	123	+1 19	−3 16	−0.2	−0.2	0.93
49	Barataria Bay Light	29 17	89 57	6 00	Galveston	123	+1 20	−3 30	+0.4	−0.2	1.40
50	Grand Pass, Timballer Light	29 03	90 21	6 01	Galveston	123	+6 53	−5 11	+0.2	−0.4	1.33
51	Wine Island, Terrebonne Bay	29 05	90 35	6 02	Galveston	123	+7 19	−4 49	0.0	−0.2	1.20
52	Isle Derniere, or Last Island	29 04	90 57	6 04	Galveston	123	+7 35	−4 14	+0.4	−0.4	1.53
53	Ship Shoal Light	28 55	91 04	6 04	Galveston	123	+7 43	−4 12	+0.4	−0.4	1.47
54	Southwest Reef Lt., Atchafalaya B.	29 24	91 30	6 06	Galveston	123	+8 14	−3 47	+0.2	−0.4	1.33
55	Atchafalaya River Entrance	29 28	91 16	6 05	Galveston	123	−2 39	−2 21	0.0	−0.2	1.07
56	Salt Point, Cote Blanche Bay	29 34	91 32	6 06	Galveston	123	−2 40	−2 09	+0.2	−0.2	1.27
57	Cote Blanche, Cote Blanche Bay	29 44	91 43	6 07	Galveston	123	−1 25	−0 48	0.0	−0.2	1.20
58	Southwest Pass, Vermilion Bay	29 35	92 02	6 08	Galveston	123	−3 50	−3 12	+0.4	−0.4	1.53
59	Mermentau River Entrance	29 45	93 04	6 12	Key West	119	+5 52	+6 31	0.0	0.0	0.99
60	Calcasieu Light	29 47	93 21	6 13	Key West	119	+6 10	+6 53	+0.4	0.0	1.24
61	Sabine Pass Light	29 43	93 51	6 15	Key West	119	+7 12	+7 50	−0.4	0.0	0.58

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	0 05	6 25	−0 06a	7 01a	2.3	2.9	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	2.0
2	12 17	6 10	12 05b	6 48a	1.8	2.3	1.2	2.4	1.1	0.3	.....	1.1	0.9	1.0	2.0
3	12 19	6 12	12 06b	6 55a	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	2.0
4	0 42	6 19	0 26a	7 11a	1.1	1.4	0.7	1.5	0.8	0.3	.....	0.9	0.6	0.7	2.0
5	2 00	7 40	1 47a	8 25a	1.4	1.8	0.9	1.9	0.9	0.3	.....	1.0	0.7	0.8	2.0
6	12 15	5 38	11 19b	6 08a	1.5	2.0	0.9	2.4	0.8	1.4	.....	1.6	0.8	1.3	2.0
7	11 32	5 07	10 33b	5 39a	1.4	1.8	0.9	2.3	0.8	1.3	.....	1.6	0.7	1.2	2.0
8	11 55	5 20	11 00b	5 50a	1.6	2.1	1.0	2.5	0.8	1.4	.....	1.7	0.8	1.4	2.0
9	0 03	6 48	11 39b	7 15a	2.0	2.6	1.2	3.0	0.9	1.6	.....	1.9	1.0	1.7	2.0
10	1 20	8 50	0 33a	9 15a	2.2	2.9	1.4	3.3	0.9	1.7	.....	2.0	1.1	1.8	2.0
11	12 15	6 20	11 23b	6 48a	1.8	2.4	1.1	2.8	0.9	1.5	.....	1.8	0.9	1.5	2.0
12	11 20	5 05	10 31b	5 32a	2.0	2.6	1.2	3.0	0.9	1.6	.....	1.9	1.0	1.7	2.0
13	0 34	7 36	−0 12a	8 01a	2.4	3.2	1.5	3.5	1.0	1.8	.....	2.1	1.2	1.9	2.0
14	0 42	7 13	−0 03a	7 37a	2.4	3.1	1.5	3.5	1.0	1.7	21 18	2.1	1.2	1.9	2.0
15	0 38	6 46	−0 09a	7 11a	2.3	3.0	1.4	3.4	1.0	1.7	.....	2.1	1.2	1.8	2.0
16	0 11	6 20	−0 38a	6 47a	2.1	2.8	1.3	3.1	0.9	1.6	.....	2.0	1.0	1.8	2.0
17	1 00	7 09	0 11a	7 36a	2.0	2.6	1.2	3.0	0.9	1.6	.....	1.9	1.0	1.7	2.0
18	0 50	6 26	−0 02a	6 54a	1.9	2.5	1.2	2.9	0.9	1.6	.....	1.9	1.0	1.6	2.0
19	0 28	6 33	−0 19a	6 58a	2.3	3.0	1.4	3.4	1.0	1.7	.....	2.1	1.2	1.8	2.0
20	1 00	7 05	0 14a	7 30a	2.4	3.2	1.5	3.5	1.0	1.8	.....	2.1	1.2	1.9	2.0
21	1 29	7 46	0 30a	8 03a	2.5	3.2	1.5	3.6	0.8	2.0	21 26	2.2	1.2	2.1	2.5
22	2 00	8 30	1 11a	8 57a	2.0	2.6	1.2	3.0	0.9	1.6	.....	1.9	1.0	1.7	2.5
23	1 00	7 05	0 13a	7 30a	2.3	3.0	1.4	3.4	1.0	1.7	.....	2.1	1.2	1.8	2.5
24	[0 20]	[6 25]	−1 10a	9 44a	[1.2]	[1.7]	[0.6]	2.9	.....	.....	.....	2.2	1.0	1.4	2.5
25	[12 10]	[5 35]	10 25b	9 27a	[0.8]	[1.1]	[0.4]	2.5	.....	.....	.....	2.1	0.8	1.2	3.0
26	[11 30]	[5 15]	9 46b	9 03a	[0.6]	[0.8]	[0.3]	2.3	.....	.....	.....	2.0	0.8	1.1	3.0
27	[11 10]	[4 55]	9 23b	8 51a	[0.4]	[0.6]	[0.2]	2.1	.....	.....	.....	1.9	0.7	1.0	3.0
28	[11 30]	[5 05]	9 48b	8 50a	[0.5]	[0.7]	[0.2]	2.2	.....	.....	.....	1.9	0.7	1.1	3.0
29	[11 35]	[5 05]	9 48b	9 01a	[0.3]	[0.4]	[0.1]	2.0	.....	.....	.....	1.8	0.7	1.0	3.0
30	[11 25]	[5 10]	9 32b	9 19a	[0.2]	[0.3]	[0.1]	1.9	.....	.....	.....	1.8	0.6	0.9	3.5
31	[11 23]	[4 19]	9 24b	8 41a	[0.1]	[0.1]	[0.0]	1.6	.....	.....	.....	1.6	0.5	0.8	4.0
32	[11 28]	[4 20]	9 29b	8 42a	[0.1]	[0.2]	[0.1]	1.7	.....	.....	21 33	1.7	0.5	0.8	4.0
33	[11 43]	[4 34]	9 51b	8 40a	[0.1]	[0.1]	[0.0]	1.8	.....	.....	.....	1.7	0.6	0.9	4.0
34	[12 15]	[5 03]	10 16b	9 25a	[0.1]	[0.1]	[0.0]	1.7	.....	.....	.....	1.7	0.5	0.8	4.0
35	[11 25]	[5 05]	9 38b	9 01a	[0.3]	[0.4]	[0.1]	2.0	.....	.....	.....	1.8	0.7	1.0	4.0
36	[11 25]	[3 09]	9 19b	8 40a	[0.1]	[0.2]	[0.1]	1.5	.....	.....	21 24	1.5	0.4	0.7	4.0
37	[0 50]	[6 30]	−0 50a	10 10a	[1.0]	[1.4]	[0.5]	2.5	.....	.....	.....	2.1	0.9	1.2	4.0
38	[1 35]	[6 50]	12 13b	10 46a	[0.5]	[0.7]	[0.2]	2.1	.....	.....	.....	1.9	0.7	1.0	4.0
39	[12 00]	[5 40]	10 13b	9 36a	[0.3]	[0.4]	[0.1]	2.0	.....	.....	.....	1.8	0.7	1.0	4.5
40	[0 20]	[5 45]	8 52b	7 48a	[0.4]	[0.6]	[0.1]	2.3	.....	.....	.....	2.2	0.7	1.1	4.5
41	[1 01]	[6 00]	9 54b	8 08a	[0.3]	[0.4]	[0.0]	2.3	.....	.....	21 29	2.2	0.7	1.1	4.5
42	[0 23]	[6 35]	10 24b	8 27a	[0.3]	[0.3]	[0.2]	2.1	.....	.....	21 52	2.0	0.7	1.0	4.5
43	[3 10]	[9 45]	12 00b	0 40b	[0.3]	[0.4]	[0.2]	1.4	.....	.....	.....	1.4	0.5	0.7	5.0
44	[11 53]	[5 33]	9 18b	7 34a	[0.2]	[0.3]	[0.1]	1.8	.....	.....	.....	1.9	0.6	0.9	4.5
45	[11 15]	[5 00]	8 25b	7 31a	[0.1]	[0.1]	[0.0]	1.6	.....	.....	.....	1.7	0.5	0.8	4.5
46	[10 55]	[4 42]	8 15b	7 04a	[0.1]	[0.2]	[0.1]	1.7	.....	.....	20 07	1.7	0.5	0.8	5.0
47	[10 54]	[4 41]	8 22b	6 56a	[0.2]	[0.3]	[0.1]	1.9	.....	.....	.....	1.8	0.6	0.9	5.0
48	[11 30]	[4 30]	8 38b	7 12a	[0.1]	[0.1]	[0.0]	1.4	.....	.....	.....	1.6	0.4	0.7	5.0
49	[11 00]	[4 47]	8 36b	6 55a	[0.4]	[0.5]	[0.2]	2.1	.....	.....	.....	1.9	0.7	1.0	5.0
50	[11 50]	[5 38]	1 43a	5 13a	[0.4]	[0.5]	[0.3]	2.0	.....	.....	.....	1.6	0.5	0.8	5.0
51	[12 10]	[6 00]	2 08a	5 34a	[0.3]	[0.3]	[0.3]	1.8	.....	.....	.....	1.5	0.5	0.7	5.5
52	[0 15]	[6 30]	2 22a	6 07a	[0.7]	[0.8]	[0.6]	2.3	.....	.....	.....	1.7	0.6	0.8	5.5
53	[0 18]	[6 33]	2 30a	6 09a	[0.6]	[0.7]	[0.5]	2.2	.....	.....	.....	1.7	0.6	0.8	5.5
54	[0 40]	[6 56]	2 58a	6 31a	[0.5]	[0.6]	[0.4]	2.0	.....	.....	.....	1.6	0.5	0.8	6.0
55	[2 00]	[8 25]	4 31b	7 58a	[0.4]	[0.5]	[0.3]	1.6	.....	.....	.....	1.4	0.5	0.7	6.0
56	[2 05]	[8 35]	4 29b	8 09a	[0.7]	[0.8]	[0.6]	1.9	.....	.....	.....	1.6	0.6	0.8	6.0
57	[3 20]	[9 55]	5 43b	9 29a	[0.6]	[0.7]	[0.5]	1.8	.....	.....	.....	1.5	0.5	0.7	6.0
58	[1 10]	[7 27]	3 17b	7 04a	[1.0]	[1.1]	[0.9]	2.3	.....	.....	.....	1.7	0.6	0.8	6.0
59	2 00	8 20	3 25b	7 36a	1.2	1.4	1.0	2.2	0.4	1.2	.....	1.3	0.6	1.0	6.5
60	2 17	8 41	3 34b	8 22a	1.5	1.7	1.3	2.0	0.4	1.2	.....	1.2	0.8	0.9	6.5
61	3 17	9 36	4 42b	9 17a	0.7	0.9	0.6	1.2	0.3	0.6	.....	0.7	0.4	0.5	6.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.	North.	West.				Time meridian, 90° W.		Mean Low Water.		
	TEXAS.	° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Bolivar Point Light	29 22	94 46	6 19	Galveston	123	+0 24	+0.09	+0.2	0.0	1.07
2	GALVESTON, Doswells Wharf	29 19	94 47	6 19	Galveston	123	0 00	0 00	0.0	0.0	1.00
3	Morgans Point, Galveston Bay	29 41	94 58	6 20	Galveston	123	+3 15	+2 21	−0.7	+0.1	0.47
4	Brazos River Entrance	28 56	95 18	6 21	Galveston	123	−0 08	0 00	0.0	0.0	1.07
5	Pass Cavallo, Matagorda Bay	28 22	96 24	6 26	Galveston	123	+0 17	+0 22	0.0	0.0	1.07
6	Aransas Pass Light	27 52	97 03	6 28	Galveston	123	+0 09	+0 12	0.0	0.0	1.07
7	Corpus Christi Pass	27 36	97 13	6 29	Galveston	123	−0 10	−0 07	0.0	0.0	1.07
8	Brazos Santiago Light	26 04	97 10	6 29	Galveston	123	−1 39	−2 19	−0.4	0.0	0.73
9	Rio Grande Entrance	25 57	97 09	6 29	Galveston	123	−2 11	−2 21	−0.2	0.0	0.93
	MEXICO.										
	Gulf of Mexico.						Local time.				
10	Tampico	22 10	97 49	6 31	Galveston	123	+0 47	−3 44	−0.3	−0.1	0.87
11	Vera Cruz	19 12	96 08	6 25	Galveston	123	+0 03	−2 28	+0.6	−0.4	1.60
12	Arcas Cays	20 15	91 58	6 08	Galveston	123	−3 05	−5 16	0.0	−0.2	1.07
13	Triangles	20 54	92 08	6 09	Galveston	123	−3 11	−5 21	0.0	−0.2	1.07
14	Laguna de Terminos	18 36	91 53	6 08	Galveston	123	−2 55	−5 06	0.0	−0.2	1.07
15	Campeche	19 50	90 32	6 02	Galveston	123	−2 17	−1 12	+1.2	−0.8	2.40
16	Sisal	21 10	90 03	6 00	Key West	119	+1 34	+2 08	+0.2	0.0	1.16
17	Cape Catoche	21 32	87 04	5 48	Key West	119	+0 32	+1 05	0.0	0.0	0.99
18	Mugueres Harbor	21 14	86 52	5 47	Key West	119	+0 21	+0 53	0.0	0.0	1.07
19	Cozumel	20 28	86 48	5 47	Key West	119	−0 39	−0 07	0.0	0.0	0.99
	BELIZE.										
20	Belize	17 33	88 14	5 53	Key West	119	−0 46	−0 12	0.0	0.0	0.99
	GUATEMALA.										
	Caribbean Sea.										
21	Dulce River Entrance	15 50	88 45	5 55	Key West	119	+0 14	+0 48	+0.4	0.0	1.32
	HONDURAS.										
	Caribbean Sea.										
22	Roatan Island	16 23	86 28	5 46	Key West	119	−1 11	−0 39	+1.6	0.0	2.23
23	Bonacca Island	16 29	85 54	5 44	Key West	119	+0 04	+0 36	0.0	0.0	0.99
	NICARAGUA.										
	Caribbean Sea.										
24	Serranilla Bank	15 50	79 48	5 19	Key West	119	−4 47	−4 25	+0.4	0.0	1.32
25	Serrana Bank	14 20	80 17	5 21	Key West	119	−4 47	−4 25	+0.4	0.0	1.32
26	Old Providence Island	13 21	81 18	5 25	Key West	119	−4 47	−4 25	−0.4	0.0	0.66
27	Cape Gracias a Dios Harbor	14 52	83 14	5 33	Key West	119	+1 33	+2 04	+0.4	0.0	1.32
28	Pearl Cays	12 23	83 26	5 34	Key West	119	+5 28	+6 00	+0.4	0.0	1.32
29	Corn Islands	12 10	83 03	5 32	Key West	119	+5 13	+5 44	+0.4	0.0	1.32
30	Bluefields	11 53	83 43	5 35	Key West	119	+5 18	+5 49	+0.4	0.0	1.32
31	San Juan del Norte (Greytown)	10 55	83 41	5 35	Key West	119	+4 38	+5 10	0.0	0.0	0.99
	COSTA RICA.										
	Caribbean Sea.										
32	Point Blanco	10 00	83 02	5 32	Key West	119	+4 38	+5 10	0.0	0.0	1.07
	BERMUDA ISLANDS.										
33	Ireland Island, dockyard	32 20	64 50	4 19	Sandy Hook	83	−0 23	−0 28	−1.3	0.0	0.72
	BAHAMAS.										
34	Memory Rock	26 59	79 09	5 17	Key West	119	−1 07	−0 35	+1.2	0.0	2.07
35	Great Bahama Island	26 29	78 40	5 15	Key West	119	−1 02	−0 30	+1.8	0.0	2.48
36	Whale Key	26 42	77 08	5 09	Key West	119	−0 58	−0 26	+2.4	0.0	2.89
37	Great Abaco	26 17	77 08	5 09	Key West	119	−0 56	−0 24	+1.2	0.0	1.98
38	Gun Key	25 34	79 18	5 17	Key West	119	−0 27	+0 05	+1.2	0.0	1.90
39	Andros Island	24 29	77 44	5 11	Key West	119	−1 08	−0 36	+1.1	0.0	1.90
40	Nassau, New Providence Island	25 05	77 21	5 09	Key West	119	−1 28	−0 56	+1.9	0.0	2.56
41	Eleuthera Island	25 08	76 08	5 05	Key West	119	−1 48	−1 16	+1.9	0.0	2.56
42	San Salvador, or Cat Island	24 20	75 24	5 02	Key West	119	−1 48	−1 16	+1.9	0.0	2.56
43	Watling Island	24 00	74 27	4 58	Key West	119	−1 48	−1 16	+1.9	0.0	2.56
44	Clarence Harbor, Long Island	23 06	74 58	5 00	Key West	119	−0 28	+0 04	+2.0	0.0	2.64
45	Crooked Island	22 49	74 21	4 57	Key West	119	−1 58	−1 26	+0.8	0.0	1.65
46	Mariguana Island	22 26	73 00	4 52	Key West	119	−1 28	−0 56	+1.1	0.0	1.90
47	Inagua Island	20 56	73 41	4 55	Key West	119	−0 58	−0 26	+1.5	0.0	2.23
48	Turks Islands	21 26	71 09	4 45	Key West	119	−1 18	−0 46	+1.1	0.0	1.90

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW. interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	[4 07]	[10 23]	7 20b	10 14a	[0.7]	[0.8]	[0.6]	1.6	.....	.....	.....	1.4	0.7	0.9	7.0
2	[4 16]	[10 33]	6 56b	10 05a	[0.6]	[0.7]	[0.5]	1.5	.....	.....	21 41	1.4	0.6	0.9	7.0
3	[6 30]	[0 40]	10 10b	0 00b	[0.1]	[0.1]	[0.1]	0.7	.....	.....	.....	0.9	0.3	0.5	7.0
4	[4 15]	[10 30]	6 46b	10 03a	[0.7]	[0.8]	[0.6]	1.6	.....	.....	.....	1.4	0.6	0.8	7.0
5	[4 35]	[10 47]	7 06b	10 20a	[0.7]	[0.8]	[0.6]	1.6	.....	.....	.....	1.4	0.6	0.8	7.5
6	[4 25]	[10 35]	6 56b	10 08a	[0.8]	[0.9]	[0.7]	1.6	.....	.....	.....	1.4	0.6	0.8	7.5
7	[4 05]	[10 15]	6 36b	9 48a	[0.7]	[0.8]	[0.6]	1.6	.....	.....	.....	1.4	0.6	0.8	7.5
8	[2 00]	[8 10]	5 07b	7 36a	[0.3]	[0.4]	[0.2]	1.1	.....	.....	.....	1.2	0.4	0.6	7.5
9	[1 55]	[8 03]	4 35b	7 34a	[0.4]	[0.5]	[0.5]	1.4	.....	.....	.....	1.3	0.5	0.7	7.5
10	[1 06]	[7 19]	8 02b	6 40a	[0.2]	[0.3]	[0.1]	1.3	.....	.....	19 58	1.3	0.4	0.6	7.0
11	[2 49]	[8 38]	7 18b	7 56a	[0.4]	[0.6]	[0.3]	2.4	.....	.....	20 35	2.4	0.7	1.1	6.5
12	[12 06]	[5 50]	4 10b	5 08a	[0.3]	[0.4]	[0.2]	1.6	.....	.....	.....	1.5	0.5	0.8	6.0
13	[12 00]	[5 45]	4 04b	5 03a	[0.3]	[0.4]	[0.2]	1.6	.....	.....	.....	1.5	0.5	0.8	6.0
14	[12 16]	[6 00]	4 20b	5 18a	[0.3]	[0.4]	[0.2]	1.6	.....	.....	.....	1.5	0.5	0.8	6.0
15	2 59	9 28	4 59b	9 13a	1.7	2.1	1.3	3.6	0.4	3.0	20 59	3.0	0.8	2.3	6.0
16	10 20	4 10	10 07b	4 55a	1.4	1.8	0.9	1.9	0.9	0.3	.....	1.0	0.7	0.8	5.5
17	9 30	3 10	9 16b	4 06a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	4.5
18	9 20	3 08	9 05b	3 57a	1.3	1.6	0.9	1.8	0.9	0.3	.....	1.0	0.6	0.8	4.5
19	8 20	2 08	8 06b	2 55a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	4.5
20	8 00	1 50	7 46b	2 37a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	5.5
21	9 00	2 50	8 47b	3 33a	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	5.5
22	7 35	1 23	7 25b	1 56a	2.7	3.5	1.8	3.4	1.3	0.4	.....	1.4	1.4	1.5	5.5
23	8 50	2 38	8 36b	3 25a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	5.0
24	4 00	10 13	3 47b	10 56b	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	3.5
25	4 00	10 13	3 47b	10 56b	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	4.0
26	4 00	10 13	3 43b	11 08b	0.8	1.0	0.5	1.2	0.7	0.2	.....	0.7	0.4	0.5	4.5
27	10 20	4 07	10 07a	4 50b	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	4.5
28	1 50	8 03	1 37b	8 46b	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	5.5
29	1 35	7 47	1 22b	8 30b	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	5.0
30	1 40	7 52	1 27b	8 35b	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	5.5
31	1 00	7 13	0 46b	8 00b	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	6.0
32	1 00	7 13	0 45b	8 02b	1.3	1.6	0.9	1.8	0.9	0.3	.....	1.0	0.6	0.8	6.0
33	7 04	0 52	7 01a	1 08a	3.3	4.0	2.6	3.6	0.8	0.1	.....	0.9	1.6	1.7	West. 9.0
34	7 40	1 28	7 30a	2 01a	2.5	3.2	1.7	3.1	1.2	0.4	.....	1.3	1.2	1.4	East. 0.5
35	7 45	1 33	7 35a	2 03a	3.0	3.8	2.0	3.8	1.4	0.5	.....	1.5	1.5	1.7	0.5
36	7 50	1 38	7 41a	2 05a	3.5	4.5	2.4	4.3	1.5	0.5	.....	1.6	1.8	1.9	0.0
37	7 52	1 40	7 42a	2 14a	2.4	3.1	1.6	3.0	1.2	0.4	.....	1.3	1.2	1.4	0.0
38	8 20	2 08	8 09a	2 44a	2.3	3.0	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	0.5
39	7 40	1 28	7 29a	2 04a	2.3	3.0	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	1.0
40	7 20	1 08	7 11a	1 38a	3.1	4.0	2.1	3.9	1.4	0.5	.....	1.5	1.6	1.7	0.5
41	7 00	0 48	6 51a	1 18a	3.1	4.0	2.1	3.9	1.4	0.5	.....	1.5	1.6	1.7	0.0
42	7 00	0 48	6 51a	1 18a	3.1	4.0	2.1	3.9	1.4	0.5	.....	1.5	1.6	1.7	0.0
43	7 00	0 48	6 51a	1 18a	3.1	4.0	2.1	3.9	1.4	0.5	.....	1.5	1.6	1.7	0.0
44	8 20	2 08	8 11a	2 38a	3.2	4.1	2.1	4.0	1.4	0.5	.....	1.5	1.6	1.8	0.5
45	6 50	0 38	6 39a	1 16a	2.0	2.5	1.3	2.6	1.1	0.4	.....	1.2	1.0	1.2	0.0
46	7 20	1 08	7 09a	1 44a	2.3	3.0	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	0.0
47	7 50	1 38	7 40a	2 11a	2.7	3.5	1.8	3.4	1.3	0.4	.....	1.4	1.4	1.5	0.5
48	7 30	1 18	7 19a	1 54a	2.3	3.0	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	0.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (EAST COAST)—Continued.										
	WEST INDIES.										
	Cuba.	North.	West.				Time meridian, 75° W.		Mean Low Water.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Cape San Antonio	21 52	84 58	5 40	Key West	119	+ 0 23	+ 0 55	0.0	0.0	0.99
2	Habana	23 08	82 22	5 29	Key West	119	0 00	+ 0 22	−0.3	0.0	0.75
3	Matanzas	23 02	81 45	5 27	Key West	119	+ 0 10	+ 0 42	+0.5	0.0	1.40
4	Cardenas	23 04	81 12	5 25	Key West	119	+ 1 03	+ 1 35	+0.2	0.0	1.13
5	Sagua la Grande	22 46	80 07	5 20	Key West	119	+ 1 38	+ 2 05	+0.8	0.0	1.65
6	Cayo Paredón Grande	22 29	78 09	5 13	Key West	119	− 1 04	− 0 32	+1.0	0.0	1.82
7	Cay Frances	22 36	79 14	5 17	Key West	119	− 2 40	− 2 08	+0.8	0.0	1.65
8	Nuevitas	21 38	77 05	5 08	Key West	119	− 1 40	− 1 08	+0.5	0.0	1.40
9	Jibara	21 04	76 06	5 04	Key West	119	− 2 24	− 1 52	+0.7	0.0	1.57
10	Cape Maysi	20 15	74 08	4 57	Key West	119	− 3 11	− 2 39	+1.0	0.0	1.82
11	Guantanamo	20 09	75 14	5 01	Key West	119	− 0 57	− 0 06	+0.8	0.0	1.65
12	Santiago de Cuba	20 00	75 51	5 03	Key West	119	− 0 25	+ 0 29	+0.5	0.0	1.41
13	Manzanillo	20 19	77 10	5 09	Key West	119	+ 2 41	+ 3 13	+1.9	0.0	2.58
14	Cienfuegos or Port Xagua	22 08	80 28	5 22	Key West	119	− 3 38	− 3 06	+0.4	0.0	1.32
	Jamaica.						Local time.				
15	Morant Point	17 55	76 11	5 05	Galveston	123	− 9 42	+11 59	−0.4	0.0	0.74
16	Port Royal	17 56	76 47	5 07	Galveston	123	− 8 42	−11 51	−0.4	0.0	0.74
17	South Negril Point	18 18	78 24	5 14	Galveston	123	− 5 15	− 8 26	−0.4	0.0	0.74
18	St. Anns Bay	18 30	77 16	5 09	Galveston	123	− 8 42	−11 51	−0.4	0.0	0.81
19	Grand Cayman Island	19 20	81 21	5 25	Galveston	123	−10 42	+10 59	−0.3	−0.1	0.87
	Haiti or Santo Domingo.										
20	Port au Prince	18 37	72 21	4 49	Galveston	123	−11 43	−10 27	−0.4	−0.2	0.81
21	Fort Dauphin	19 45	71 48	4 47	St. John	47	− 1 53	− 1 03	+1.4	−0.4	1.92
22	Samana Bay	19 13	69 09	4 37	St. John	47	− 0 57	− 0 56	−0.6	−0.4	0.92
23	Santo Domingo	18 27	69 53	4 40	Galveston	123	−10 43	− 9 27	+0.6	−0.2	1.48
24	Jacmel	18 12	72 35	4 50	Galveston	123	−10 43	− 9 27	+0.8	−0.2	1.68
	Porto Rico.						Time meridian, 60° W.				
25	Culebrita Island Light	18 19	65 14	4 21	Galveston	123	−10 33	− 9 12	−0.4	−0.2	0.67
26	Great Harbor, Culebra Island	18 18	65 17	4 21	Galveston	123	−10 32	− 9 07	−0.2	0.0	0.80
27	Port Ferro, Crab Island	18 06	65 26	4 22	Galveston	123	−10 30	− 8 51	−0.4	0.0	0.73
28	San Juan	18 29	66 07	4 24	Key West	119	− 0 04	+ 0 41	−0.1	0.0	0.92
29	Fajardo Harbor	18 20	65 38	4 23	Key West	119	− 0 31	+ 0 27	−0.1	0.0	0.92
30	Humacao Bay	18 09	65 46	4 23	Key West	119	− 0 29	+ 0 30	+0.1	0.0	1.08
31	Port of Ponce	17 59	66 40	4 27	Galveston	123	− 6 35	− 8 35	−0.6	−0.2	0.53
32	Port Guanica	17 58	66 56	4 28	Galveston	123	− 7 59	−10 49	−0.6	0.0	0.67
33	Port Real	18 05	67 11	4 29	Key West	119	− 0 24	+ 0 39	−0.2	0.0	0.83
34	Mayaguez	18 13	67 08	4 29	Key West	119	− 1 16	+ 0 24	+0.3	0.0	1.25
	Windward or Caribbean Islands.						Local time.				
35	St. Thomas Island	18 25	64 58	4 20	Galveston	123	−10 55	− 9 37	−0.4	0.0	0.80
36	St. Bartholomew Island	17 54	62 51	4 11	Galveston	123	−10 44	− 9 28	0.0	0.0	1.00
37	Antigua Island	16 59	61 48	4 07	Galveston	123	− 9 44	− 8 28	+0.4	−0.2	1.34
38	Guadaloupe	16 12	61 27	4 06	Galveston	123	− 8 44	− 7 28	−0.3	−0.1	0.87
39	Dominica	15 35	61 31	4 06	Key West	119	+ 7 35	+ 8 06	0.0	0.0	0.99
40	Martinique	14 42	60 54	4 04	Key West	119	+ 7 25	+ 7 56	−0.3	0.0	0.74
41	St. Vincent, Kingstown	13 10	61 13	4 05	Key West	119	+ 6 18	+ 6 52	0.0	0.0	1.00
42	Barbados	13 07	59 36	3 58	Key West	119	+ 6 25	+ 6 56	+1.1	0.0	1.90
43	Grenada	12 04	61 45	4 07	Key West	119	+ 6 05	+ 6 36	0.0	0.0	0.99
44	Tobago	11 10	60 42	4 03	Key West	119	+ 7 25	+ 7 56	+0.4	0.0	1.32
	SOUTH AMERICA (NORTH AND EAST COASTS).										
	COLOMBIA.										
	Caribbean Sea.										
45	Colon (Aspinwall)	9 18	79 51	5 19	Key West	119	+ 3 44	+ 4 15	−0.3	0.0	0.74
46	Caledonia Harbor	8 56	77 47	5 11	Key West	119	+ 2 42	+ 3 13	0.0	0.0	0.99
47	Cartagena	10 27	75 32	5 02	Key West	119	+ 2 02	+ 2 33	+0.1	0.0	1.07
	VENEZUELA.										
48	Maracaibo	10 43	71 39	4 47	Apia	209	− 1 33	− 1 32	−0.9	−0.3	0.79
49	La Guaira	10 40	66 58	4 28	Apia	209	− 0 39	− 0 38	−0.6	−0.3	0.91
50	Orinoco River Entrance	9 02	60 50	4 03	Apia	209	− 0 50	− 0 51	−0.4	−0.3	0.98
	TRINIDAD.										
51	Port of Spain	10 39	61 31	4 06	Apia	209	− 2 20	− 2 21	+0.3	−0.3	1.26
52	Galeota Point	10 08	60 59	4 04	Apia	209	− 2 40	− 2 41	−0.3	−0.3	1.02

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW. interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	8 30	2 18	7 53b	2 10a	1.2	1.5	0.9	1.4	0.9	0.1	.....	0.9	0.6	0.7	3.5
2	8 18	1 56	8 09b	3 18a	0.9	1.3	0.7	1.7	1.2	0.2	.....	1.2	0.5	0.9	3.0
3	8 30	2 18	8 00b	2 12a	1.7	2.2	1.2	2.9	1.1	0.1	.....	1.1	0.8	0.9	2.5
4	9 25	3 13	8 52b	3 06a	1.4	1.8	1.0	1.5	1.0	0.1	.....	1.0	0.7	0.8	2.5
5	10 00	3 48	9 32b	3 42a	2.0	2.6	1.4	2.2	1.2	0.1	.....	1.2	1.0	1.1	2.0
6	7 20	1 08	6 55b	1 02a	2.2	2.8	1.6	2.4	1.2	0.1	.....	1.2	1.1	1.2	1.5
7	5 50	12 03	5 22b	11 57b	2.0	2.6	1.4	2.2	1.2	0.1	.....	1.2	1.0	1.1	2.0
8	7 00	0 48	6 30b	0 44a	1.7	2.2	1.2	1.9	1.1	0.1	.....	1.1	0.8	0.9	1.5
9	6 20	0 08	5 51b	0 02a	1.9	2.4	1.4	2.1	1.2	0.1	.....	1.2	1.0	1.1	1.0
10	5 40	11 53	5 15b	11 47b	2.2	2.8	1.6	2.4	1.2	0.1	.....	1.2	1.1	1.2	0.5
11	7 50	2 00	7 39b	2 38a	2.0	2.6	1.3	2.6	1.1	0.4	.....	1.2	1.0	1.2	1.0
12	8 20	2 30	8 08b	2 48a	1.7	2.2	1.1	2.2	1.0	0.3	.....	1.1	0.8	1.0	1.0
13	10 30	4 18	10 21b	4 48a	3.1	4.0	2.1	3.9	1.4	0.5	.....	1.5	1.6	1.7	1.5
14	4 47	11 00	4 34a	11 43a	1.6	2.0	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	2.0
15	.....	.....	10 00a	10 00b	[0.4]	.....	.....	1.1	.....	.....	.....	1.0	0.4	0.6	2.0
16	.....	.....	11 00a	11 00b	[0.4]	.....	.....	1.1	.....	.....	.....	1.0	0.4	0.6	2.0
17	.....	.....	2 00b	2 00a	[0.4]	.....	.....	1.1	.....	.....	.....	1.0	0.4	0.6	2.5
18	.....	.....	11 00a	11 00b	[0.5]	.....	.....	1.2	.....	.....	.....	1.1	0.4	0.6	2.0
19	.....	.....	9 00a	9 00b	[0.5]	.....	.....	1.3	.....	.....	.....	1.1	0.4	0.6	3.0
20	.....	.....	8 00a	0 00a	[0.5]	.....	.....	1.2	.....	.....	.....	1.1	0.4	0.6	1.0
21	6 50	0 39	7 00a	11 00b	4.3	5.5	2.9	5.5	1.6	0.5	.....	1.8	2.2	2.3	0.5
22	9 00	2 48	8 00a	0 00a	2.3	3.0	1.5	3.1	1.2	0.4	.....	1.3	1.2	1.3	0.0
23	.....	.....	9 00a	1 00a	[0.9]	.....	.....	2.2	.....	.....	.....	1.4	0.8	1.1	0.0
24	.....	.....	9 00a	1 00a	[1.0]	.....	.....	2.5	.....	.....	.....	1.5	0.9	1.2	1.0
															West.
25	[7 31]	[1 30]	8 50a	0 55a	[0.8]	[1.0]	[0.6]	1.0	.....	.....	.....	0.9	0.5	0.5	1.0
26	[7 33]	[1 34]	8 51a	1 00a	[0.8]	[1.0]	[0.6]	1.2	.....	.....	.....	1.1	0.5	0.6	1.0
27	[7 35]	[1 40]	8 52a	1 15a	[0.6]	[0.8]	[0.4]	1.1	.....	.....	.....	1.0	0.4	0.5	1.0
28	8 21	2 20	8 57a	1 43a	1.1	1.3	0.9	1.8	0.8	0.7	.....	1.0	0.6	0.9	1.0
29	7 55	2 09	8 53a	1 17a	1.1	1.4	0.8	1.3	0.4	0.1	.....	0.9	0.6	0.5	1.0
30	7 57	2 12	8 55a	1 24a	1.3	1.5	1.0	1.5	0.5	0.2	.....	1.0	0.6	0.7	1.0
31	.....	.....	0 17b	1 26a	[0.3]	.....	.....	0.8	.....	.....	.....	0.7	0.4	0.5	0.5
32	.....	.....	11 17a	11 36b	[0.3]	[0.6]	[0.1]	1.0	.....	.....	.....	0.8	0.3	0.5	0.5
33	7 56	2 15	8 01a	0 00a	1.0	1.2	0.8	1.3	0.6	0.3	.....	0.7	0.5	0.5	0.5
34	8 04	2 00	7 50a	0 33a	1.5	2.0	1.0	2.1	0.8	0.4	.....	0.9	0.8	0.8	0.5
35	[7 11]	[0 58]	8 49a	0 51a	[0.5]	.....	.....	1.2	.....	.....	11 05	1.1	0.4	0.6	1.0
36	.....	.....	9 00a	1 00a	[0.6]	.....	.....	1.5	.....	.....	.....	1.3	0.6	0.8	1.5
37	.....	.....	10 00a	2 00a	[0.8]	.....	.....	2.0	.....	.....	.....	1.4	0.7	1.0	1.5
38	.....	.....	11 00a	3 00a	[0.5]	.....	.....	1.3	.....	.....	.....	1.1	0.4	0.6	1.5
39	4 00	10 12	3 46a	10 59a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	1.0
40	3 50	10 02	3 33a	10 59a	0.9	1.1	0.6	1.1	0.8	0.2	.....	0.8	0.4	0.5	1.0
41	2 50	9 05	2 36a	9 52a	1.2	1.6	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	0.5
42	2 50	9 02	2 39a	9 38a	2.3	3.0	1.5	2.9	1.2	0.4	.....	1.3	1.2	1.3	1.0
43	2 30	8 42	2 16a	9 29a	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	0.0
44	3 50	10 02	3 37a	10 45a	1.6	2.1	1.1	2.1	1.0	0.3	.....	1.1	0.8	0.9	0.0
															East.
45	0 06	6 18	—0 11b	7 15b	0.9	1.1	0.6	1.1	0.8	0.2	.....	0.8	0.4	0.5	5.0
46	11 30	5 17	11 16a	6 04b	1.2	1.5	0.8	1.7	0.9	0.3	.....	0.9	0.6	0.7	4.5
47	10 50	4 37	10 35a	5 26b	1.3	1.6	0.9	1.8	0.9	0.3	.....	1.0	0.6	0.8	4.0
48	5 05	11 17	5 04b	11 27a	2.0	2.5	1.5	2.0	0.3	0.1	.....	0.3	1.0	0.9	3.0
49	6 00	12 12	5 59b	12 20a	2.3	2.8	1.7	2.3	0.3	0.1	.....	0.3	1.2	1.1	2.0
50	5 50	12 00	5 49b	12 10a	2.5	3.1	1.8	2.5	0.4	0.1	.....	0.4	1.2	1.2	0.5
51	4 20	10 30	4 19b	10 38a	3.2	4.0	2.4	3.2	0.4	0.1	.....	0.4	1.6	1.5	0.0
52	4 00	10 10	3 59b	10 20a	2.6	3.2	1.9	2.6	0.4	0.1	.....	0.4	1.3	1.2	0.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	SOUTH AMERICA (NORTH AND EAST COASTS)—Continued.										
	GUIANA.	North.	West.				Local time.		Mean Low Water.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Georgetown, Demerara River	6 49	58 11	3 53	Kingstown	313	+ 5 58	+ 5 30	− 3.4	−1.0	0.73
2	Paramaribo, Surinam River	6 02	55 13	3 41	Kingstown	313	+ 7 30	+ 7 40	− 2.7	−1.0	0.81
3	Cayenne, Cayenne River	4 56	52 20	3 29	Kingstown	313	+ 6 06	+ 6 09	− 5.3	−1.0	0.51
	BRAZIL.										
4	Cape Cachipour	3 49	51 01	3 24	Cape Town	261	− 8 10	− 8 13	+ 3.2	−0.6	2.06
5	Conani River	2 50	50 53	3 24	Cape Town	261	− 7 24	− 5 08	+10.4	−0.6	4.14
6	Maraca Island Anchorage	2 09	50 30	3 22	Cape Town	261	− 7 52	− 4 38	+18.3	−0.6	6.54
7	Balique Id. Lt., Amazon R. Entr.	0 54	49 55	3 20	Cape Town	261	− 5 22	− 2 08	+ 6.8	−0.6	3.11
8	Point Pedrera, Amazon River	0 11	50 43	3 23	Cape Town	261	− 3 02	+ 0 12	+ 8.2	−0.6	3.51
		South.									
9	Dentro Channel, Para R. Entr	0 23	47 55	3 12	Cape Town	261	− 3 12	− 3 10	+ 3.8	−0.6	2.26
10	Para, Para River	1 27	48 31	3 14	Cape Town	261	− 2 02	− 2 01	+ 4.4	−0.6	2.40
11	San Joao Islands Light	1 17	44 55	3 00	Cape Town	261	− 7 39	− 7 37	+ 6.6	−0.6	3.06
12	Maranhão, or San Luiz	2 30	44 19	2 57	Cape Town	261	− 7 03	− 7 01	+ 8.6	−0.6	3.60
13	Santa Anna Reefs Light	2 16	43 36	2 54	Cape Town	261	− 8 18	− 8 17	+ 6.0	−0.6	2.86
14	Tutoia Anchorage	2 46	42 21	2 49	Cape Town	261	− 8 48	− 8 47	+ 4.8	−0.6	2.54
15	San Joao da Paranahiba	2 59	41 47	2 47	Cape Town	261	− 8 35	− 8 34	+ 5.8	−0.6	2.80
16	Camocim	2 53	40 52	2 43	Cape Town	261	− 8 43	− 8 42	+ 6.6	−0.6	3.06
17	Point Jericoacoara	2 48	40 32	2 42	Cape Town	261	− 8 38	− 8 37	+ 2.0	−0.6	1.71
18	Mandahi River Entrance	3 10	39 23	2 38	Cape Town	261	− 8 33	− 8 32	+ 2.6	−0.6	1.89
19	Ceara	3 42	38 31	2 34	Cape Town	261	− 8 28	− 8 27	+ 2.2	−0.6	1.77
20	Aracati, Jaguarybe River	4 28	37 45	2 31	Cape Town	261	− 8 03	− 8 04	+ 2.0	−0.6	1.74
21	Povoaçao, Mossoro River	4 57	37 10	2 29	Cape Town	261	− 9 09	− 9 08	+ 2.4	−0.6	1.86
22	Cape St. Roque	5 29	35 16	2 21	Cape Town	261	− 9 49	− 9 48	+ 2.6	−0.6	1.91
23	Parahiba River Light	6 57	34 50	2 19	Cape Town	261	− 8 54	− 8 53	+ 2.0	−0.6	1.71
	SOUTH AMERICA (SOUTH AND EAST COASTS).										
	BRAZIL—continued.										
24	Pernambuco (Recife Arsenal)	8 04	34 54	2 20	Cape Town	261	− 9 21	− 9 15	+ 1.2	−0.6	1.52
25	Maceio	9 35	35 41	2 23	Cape Town	261	− 9 34	− 9 33	+ 2.4	−0.6	1.86
26	San Francisco River Entrance	10 28	36 23	2 26	Cape Town	261	− 9 37	− 9 36	+ 1.8	−0.6	1.69
27	Bahia	12 58	38 31	2 34	Cape Town	261	− 9 43	− 9 42	+ 1.8	−0.6	1.66
28	Morro Sao Paulo	18 21	38 54	2 36	Cape Town	261	−10 03	−10 04	+ 0.6	−0.6	1.31
29	Port Camamu	13 54	39 02	2 36	Cape Town	261	−10 03	−10 04	+ 0.8	−0.6	1.37
30	San Jorge dos Ilheos	14 47	39 03	2 36	Cape Town	261	−10 18	−10 17	+ 0.8	−0.6	1.40
31	Santa Cruz	16 17	39 02	2 36	Cape Town	261	−10 08	−10 27	+ 0.6	− 0.6	1.31
32	Comoxatiba	17 06	39 10	2 37	Cape Town	261	−10 33	−10 32	+ 0.2	−0.6	1.23
33	Caravellas	17 43	39 09	2 37	Cape Town	261	−10 43	−10 41	+ 0.8	−0.6	1.40
34	Abrolhos Island Light	17 57	38 40	2 35	Cape Town	261	−10 38	−10 37	+ 1.6	−0.6	1.63
35	Aldeia Velha, Barra de Santa Cruz	19 55	40 08	2 41	Cape Town	261	−10 58	−10 57	− 0.8	−0.6	0.91
36	Victoria, Espirito Santo Bay	20 19	40 20	2 41	Cape Town	261	−11 03	−11 04	− 1.0	−0.6	0.86
37	Benevente	20 49	40 41	2 43	Cape Town	261	−11 13	−11 12	− 0.2	−0.6	1.09
38	Itabapuana	21 20	40 59	2 44	Cape Town	261	−11 23	−11 22	0.0	−0.6	1.14
39	Macahe	22 23	41 47	2 47	Cape Town	261	−11 33	−11 34	+ 3.0	−0.6	2.00
40	Porto Frio	22 58	42 00	2 48	Cape Town	261	−11 23	−11 22	− 0.4	−0.6	1.06
41	Rio de Janeiro	22 55	43 09	2 53	Cape Town	261	−11 03	−11 04	− 0.8	−0.6	0.91
42	Paratio, Ilha Grande Bay	23 13	44 46	2 59	Cape Town	261	−12 18	−12 17	0.0	−0.6	1.14
43	San Sebastiao	23 48	45 23	3 02	Cape Town	261	−12 02	−12 03	− 1.0	−0.6	0.86
44	Santos	23 56	46 20	3 05	Cape Town	261	−11 02	−11 03	+ 0.4	−0.6	1.26
45	Paranagua	25 31	48 30	3 14	Cape Town	261	−10 57	−10 58	+ 0.8	−0.6	1.40
46	Cape Joao Diaz, San Francisco R.	26 11	48 32	3 14	Cape Town	261	−11 32	−11 31	− 0.4	−0.6	1.03
47	Santa Catharina Island	27 27	48 31	3 14	Cape Town	261	−11 17	−11 16	+ 0.4	−0.6	1.29
48	Rio Grande do Sul	32 06	52 08	3 29	Cape Town	261	− 9 52	− 9 51	− 2.6	−0.6	0.40
	URUGUAY.								Mean Low Water Springs.		
49	Castillo Bay	34 22	53 48	3 35	Buenos Ayres	127	+ 1 17	+ 1 58	− 0.2	+0.2	0.83
50	Montevideo, Plata River	34 53	56 12	3 45	Buenos Ayres	127	− 4 52	− 4 12	+ 1.4	+0.2	1.63
51	Colonia, Plata River	34 28	57 52	3 51	Buenos Ayres	127	− 0 16	+ 0 07	+ 1.8	+0.2	1.91
	ARGENTINA.										
52	BUENOS AYRES, Plata River	34 36	58 22	3 54	Buenos Ayres	127	0 00	0 00	0.0	0.0	1.00
53	Barragan Bay, Plata River	34 49	57 54	3 52	Buenos Ayres	127	− 0 45	− 0 37	+ 1.4	+0.2	1.69
54	San Boronbon Bay	35 54	57 22	3 49	Buenos Ayres	127	− 2 18	− 1 50	+ 2.9	+0.3	2.47
55	Cape San Antonio	36 20	56 46	3 47	Buenos Ayres	127	+ 3 00	+ 3 38	+ 3.0	+0.2	2.53
56	Point Mogotes	38 09	57 30	3 50	Sitka	159	− 2 54	− 2 56	− 2.2	−2.2	0.98
57	Port Belgrano, Bahia Blanca	38 59	61 52	4 07	Sitka	159	+ 5 44	+ 5 57	+ 3.1	−1.5	1.59

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	4 18	9 50	.....	.....	6.4	8.6	3.9	.....	.....	.....	.....	.....	3.2	.....	0.0
2	5 50	12 00	.....	.....	7.1	9.5	4.3	.....	.....	.....	.....	.....	3.6	.....	1.0
3	4 27	10 30	.....	.....	4.5	6.0	2.7	.....	.....	.....	.....	.....	2.2	.....	2.5
4	5 42	11 50	5 39b	11 55a	7.2	9.5	4.5	7.9	0.6	0.3	.....	0.7	3.6	3.9	3.0
5	6 28	2 30	6 26b	2 34b	14.5	19.0	9.1	15.6	0.9	0.5	.....	1.0	7.2	7.6	3.0
6	6 00	3 00	5 58b	3 03b	22.9	30.0	14.3	24.2	1.1	0.6	.....	1.3	11.4	12.0	3.0
7	8 30	5 30	8 28b	5 34b	10.9	14.3	6.8	11.8	0.8	0.4	.....	0.9	5.4	5.8	3.5
8	10 50	7 50	10 48b	7 54b	12.3	16.2	7.7	13.2	0.8	0.4	.....	0.9	6.2	6.5	3.0
9	10 40	4 28	10 38b	4 32b	7.9	10.4	4.9	8.7	0.7	0.3	.....	0.7	4.0	4.2	4.5
10	11 50	5 37	11 47b	5 42b	8.4	11.0	5.2	9.2	0.7	0.4	.....	0.8	4.2	4.6	4.0
11	6 14	0 02	6 12b	0 06b	10.7	14.1	6.7	11.6	0.8	0.4	.....	0.9	5.4	5.7	7.0
12	6 50	0 38	6 48b	0 42b	12.6	16.5	7.9	13.5	0.8	0.4	.....	0.9	6.3	6.6	7.5
13	5 35	11 47	5 33b	11 51a	10.0	13.1	6.2	10.9	0.8	0.4	.....	0.8	5.0	5.4	8.0
14	5 05	11 17	5 02b	11 22a	8.9	11.7	5.6	9.8	0.7	0.4	.....	0.8	4.4	4.8	9.0
15	5 18	11 30	5 16b	11 34a	9.8	12.9	6.1	10.6	0.7	0.4	.....	0.8	4.9	5.2	9.5
16	5 10	11 22	5 08b	11 28a	10.7	14.1	6.7	11.6	0.8	0.4	.....	0.9	5.4	5.7	10.5
17	5 15	11 27	5 12b	11 32a	6.0	7.9	3.7	6.7	0.6	0.3	.....	0.7	3.0	3.3	10.5
18	5 20	11 32	5 17b	11 37a	6.6	8.6	4.1	7.3	0.6	0.3	.....	0.7	3.3	3.6	11.0
19	5 25	11 37	5 22b	11 42a	6.2	8.2	3.9	6.9	0.6	0.3	.....	0.7	3.1	3.4	12.0
20	5 50	12 00	5 47b	12 05a	6.1	8.0	3.8	6.8	0.6	0.3	.....	0.7	3.0	3.3	12.5
21	4 45	10 57	4 42b	11 02a	6.5	8.5	4.1	7.2	0.6	0.3	.....	0.7	3.2	3.5	13.0
22	4 05	10 17	4 02b	10 22a	6.7	8.8	4.2	7.4	0.6	0.3	.....	0.7	3.4	3.6	15.0
23	5 00	11 12	4 57b	11 17a	6.0	7.9	3.7	6.7	0.6	0.3	.....	0.6	3.0	3.3	15.5
24	4 33	10 50	4 30b	10 56a	5.3	7.0	3.3	6.0	0.6	0.3	15 00	0.6	2.6	2.9	15.5
25	4 20	10 32	4 17b	10 37a	6.5	8.5	4.1	7.2	0.6	0.3	.....	0.7	3.2	3.5	15.0
26	4 17	10 29	4 14b	10 34a	5.9	7.8	3.7	6.6	0.6	0.3	.....	0.6	3.0	3.2	14.0
27	4 10	10 22	4 07b	10 27a	5.8	7.6	3.6	6.5	0.6	0.3	.....	0.6	2.9	3.2	12.0
28	3 50	10 00	3 46b	10 07a	4.6	6.0	2.9	5.2	0.5	0.3	.....	0.5	2.3	2.6	12.0
29	3 50	10 00	3 47b	10 06a	4.8	6.3	3.0	5.4	0.5	0.3	.....	0.6	2.4	2.7	11.5
30	3 35	9 47	3 32b	9 53a	4.9	6.4	3.1	5.5	0.5	0.3	.....	0.6	2.4	2.7	11.5
31	3 25	9 37	3 21b	9 44a	4.6	6.0	2.9	5.2	0.5	0.3	.....	0.5	2.3	2.6	11.5
32	3 20	9 32	3 17b	9 38a	4.3	5.6	2.7	4.9	0.5	0.3	.....	0.5	2.2	2.4	11.0
33	3 10	9 23	3 07b	9 29a	4.9	6.4	3.1	5.5	0.5	0.3	.....	0.6	2.4	2.7	11.0
34	3 15	9 27	3 12b	9 32a	5.7	7.5	3.6	6.4	0.6	0.3	.....	0.6	2.8	3.1	11.5
35	2 55	9 07	2 51b	9 15a	3.2	4.2	2.0	3.7	0.4	0.2	.....	0.5	1.6	1.8	10.0
36	2 50	9 00	2 46b	9 09a	3.0	4.0	1.9	3.5	0.4	0.2	.....	0.4	1.5	1.7	10.0
37	2 40	8 52	2 36b	8 59a	3.8	5.0	2.4	4.3	0.5	0.2	.....	0.5	1.9	2.1	9.5
38	2 30	8 42	2 27b	8 47a	4.0	5.3	2.5	4.5	0.5	0.2	.....	0.5	2.0	2.2	9.0
39	2 20	8 30	2 17b	8 35a	7.0	9.2	4.4	7.7	0.6	0.3	.....	0.7	3.5	3.8	8.5
40	2 30	8 42	2 26b	8 49a	3.7	4.9	2.3	4.2	0.5	0.2	.....	0.5	1.8	2.0	8.0
41	2 50	9 00	2 46b	9 08a	3.2	4.2	2.0	3.7	0.4	0.2	.....	0.5	1.6	1.8	7.5
42	1 35	7 47	1 33b	7 52a	4.0	5.3	2.5	4.5	0.5	0.2	.....	0.5	2.0	2.2	6.5
43	1 50	8 00	1 46b	8 09a	3.0	4.0	1.9	3.5	0.4	0.2	.....	0.4	1.5	1.7	5.5
44	2 50	9 00	2 47b	9 06a	4.4	5.8	2.8	5.0	0.5	0.3	.....	0.5	2.2	2.5	5.0
45	2 55	9 05	2 52b	9 11a	4.9	6.4	3.1	5.5	0.5	0.3	.....	0.6	2.4	2.7	2.0
46	2 20	8 32	2 16b	8 39a	3.6	4.7	2.2	4.1	0.5	0.2	.....	0.5	1.8	2.0	2.0
47	2 35	8 47	2 32b	8 53a	4.5	5.9	2.8	5.1	0.5	0.3	.....	0.5	2.2	2.5	2.0 W.
48	4 00	10 12	3 54b	10 23a	1.4	1.8	0.9	1.7	0.3	0.1	.....	0.3	0.7	0.8	2.5 E.
															East.
49	8 20	2 08	8 33a	1 27a	1.5	2.0	0.9	1.9	0.3	0.1	.....	0.3	1.0	0.9	4.0
50	2 00	8 12	2 13a	7 36a	2.9	3.5	2.3	4.1	1.7	0.7	.....	1.9	1.8	1.8	6.0
51	6 30	0 00	6 42a	−0 32a	3.4	4.0	2.7	4.7	1.8	0.8	.....	2.0	2.0	2.1	8.0
52	6 43	12 15	6 59a	11 32b	1.8	2.1	1.4	2.7	1.3	0.5	20 09	1.4	1.0	1.2	8.0
53	6 00	11 40	6 13a	11 06b	3.0	3.6	2.3	4.2	1.7	0.7	.....	1.9	1.8	1.9	8.0
54	4 30	10 30	4 40a	10 02b	4.4	5.2	3.4	5.9	2.1	0.9	.....	2.3	2.6	2.7	7.5
55	9 50	3 35	10 00b	3 07a	4.5	5.3	3.5	5.9	2.1	0.9	.....	2.3	2.6	2.7	7.5
56	9 48	3 33	9 30b	3 43a	7.6	9.8	5.1	7.7	1.3	2.1	.....	2.5	4.9	4.5	8.5
57	6 00	0 00	5 46b	0 08a	12.3	15.8	8.2	13.9	1.7	2.7	.....	3.2	7.9	6.7	11.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	SOUTH AMERICA (SOUTH AND EAST COASTS)—Continued.										
	PATAGONIA.										
	East coast.	*South.*	*West.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Point Medano, Rio Negro Entr	41 03	62 46	4 11	Sitka	159	+10 33	+10 34	+ 2.2	−1.6	1.49
2	Port San Antonio, San Matias Gulf	40 46	64 47	4 19	Sitka	159	+10 19	+10 20	+10.0	−0.6	2.37
3	Port San Josef, San Matias Gulf	42 23	64 20	4 17	Sitka	159	+ 9 49	+ 9 50	+14.6	0.0	2.90
4	Port Madryn, Nuevo Gulf	42 45	64 59	4 20	Sitka	159	+ 6 49	+ 6 49	+ 0.8	−1.8	1.33
5	Port Santa Elena	44 31	65 22	4 21	Sitka	159	+ 3 34	+ 3 35	+ 4.0	−1.4	1.69
6	Port Desire	47 45	65 55	4 24	Sitka	159	− 0 16	− 0 16	+ 5.4	−1.2	1.85
7	Port San Julian	49 15	67 42	4 31	Sitka	159	− 2 06	− 2 05	+15.4	0.0	2.98
8	Port Santa Cruz	50 08	68 23	4 34	Sitka	159	− 3 21	− 3 20	+24.3	+1.0	4.00
9	Coy Inlet	50 58	69 10	4 37	Sitka	159	− 3 41	− 3 41	+24.6	+1.2	4.03
10	Port Gallegos	51 33	69 01	4 36	Sitka	159	− 4 01	− 4 00	+29.6	+1.8	4.61
	MAGELLAN STRAIT.										
11	Sarmiento Bank	52 30	68 03	4 32	Sitka	159	− 4 41	− 4 40	+23.2	+1.0	3.88
12	Cape Virgins	52 19	68 22	4 33	Sitka	159	− 4 23	− 4 22	+23.6	+1.0	3.91
13	Dungeness	52 24	68 26	4 34	Sitka	159	− 4 22	− 4 21	+24.1	+1.1	3.97
14	Cape Espiritu Santo	52 39	68 34	4 34	Sitka	159	− 4 21	− 4 20	+23.8	+1.0	3.93
15	Catherine Point	52 32	68 45	4 35	Sitka	159	− 4 17	− 4 16	+15.8	0.0	3.03
16	Possession Bay, Stonewall Anch	52 16	69 10	4 37	Sitka	159	− 4 06	− 4 03	+23.8	+1.0	3.93
17	Direction Hill	52 21	69 29	4 38	Sitka	159	− 3 58	− 3 53	+22.8	+0.8	3.83
18	First Narrows	52 30	69 36	4 38	Sitka	159	− 3 54	− 3 48	+23.8	+1.0	3.93
19	Philip Bay, east side	52 40	69 37	4 38	Sitka	159	− 3 36	− 3 28	+ 5.0	−1.2	1.81
20	St. Jago Bay	52 32	69 55	4 40	Sitka	159	− 3 27	− 3 18	+ 6.8	−1.0	2.02
21	Gregory Bay	52 37	70 08	4 41	Sitka	159	− 3 18	− 3 08	+ 7.8	−1.0	2.12
22	Second Narrows	52 45	70 17	4 41	Sitka	159	− 2 51	− 2 38	+ 8.5	−0.7	2.32
23	Gracia Point	52 44	70 32	4 42	Sitka	159	− 2 34	− 2 21	− 3.8	−2.4	0.80
24	Pecket Harbor	52 47	70 48	4 43	Sitka	159	− 2 13	− 2 00	− 4.7	−2.5	0.71
25	Royal Road, Elizabeth Island	52 49	70 36	4 42	Sitka	159	− 2 17	− 2 04	− 3.8	−2.4	0.80
26	Santa Magdalena Island	52 56	70 35	4 42	Sitka	159	− 2 16	− 2 03	− 2.1	−2.1	1.00
27	Sandy Point	53 10	70 54	4 44	Sitka	159	− 1 38	− 1 25	− 6.5	−2.6	0.50
28	Port Famine	53 38	70 59	4 44	Sitka	159	− 0 43	− 0 30	− 5.6	−2.6	0.61
29	Cape San Isidro	53 47	70 55	4 44	Sitka	159	− 0 20	− 0 07	− 3.8	−2.4	0.80
30	Cape Froward	53 54	71 18	4 45	Sitka	159	+ 0 12	+ 0 25	− 4.7	−2.5	0.71
31	Woods Bay	53 48	71 38	4 47	Sitka	159	+ 0 39	+ 0 49	− 3.8	−2.4	0.80
32	Port Gallant, Fortescue Bay	53 42	72 00	4 48	Sitka	159	+ 1 05	+ 1 13	− 3.8	−2.4	0.80
33	Borja Bay	53 32	72 29	4 50	Sitka	159	+ 1 39	+ 1 44	− 6.0	−2.6	0.56
34	Swallow Bay	53 30	72 48	4 51	Cape Horn	131	− 2 13	− 1 53	+ 0.2	0.0	1.04
35	Playa Parda Cove	53 19	73 00	4 52	Cape Horn	131	− 2 35	− 2 17	− 0.4	0.0	0.93
36	Port Angosto	53 14	73 22	4 53	Cape Horn	131	− 2 57	− 2 40	− 0.8	0.0	0.83
37	Sylvia Cove	52 59	73 33	4 54	Cape Horn	131	− 3 06	− 2 49	− 0.4	0.0	0.88
38	Port Tamar	52 56	73 45	4 55	Cape Horn	131	− 3 11	− 2 54	+ 1.1	0.1	1.23
39	Tuesday Bay	52 51	74 27	4 58	Cape Horn	131	− 3 22	− 3 05	+ 1.0	0.0	1.20
40	Cape Pillar	52 43	74 42	4 59	Cape Horn	131	− 3 34	− 3 16	− 0.8	0.0	0.83
	DETACHED ISLANDS.										
41	Rocas Reef Light	3 51	33 49	2 15	Kingstown	313	+ 6 42	+ 6 55	− 1.0	+0.2	0.85
42	Fernando Noronha	3 50	32 25	2 10	Kingstown	313	+ 6 37	+ 6 50	− 4.6	−0.2	0.51
43	Trinidad Islands	20 30	29 22	1 57	Apia	209	− 3 04	− 3 04	+ 0.6	+0.2	1.18
44	Martin Vaz Islets	20 29	28 53	1 56	Apia	209	− 3 09	− 3 09	+ 0.2	+0.2	1.02
45	South Georgia (Royal Bay)	54 31	36 01	2 24	Singapore	193	− 2 40	− 2 32	− 4.8	−1.0	0.29
	FALKLAND ISLANDS.										
46	Port Louis, Berkeley Sound	51 29	58 00	3 52	Sitka	159	− 7 11	− 7 27	− 7.1	−2.7	0.43
47	Bay of Harbors	52 15	59 16	3 57	Sitka	159	− 6 52	− 6 51	− 6.7	−2.7	0.48
48	Port Stephens	52 12	60 40	4 03	Sitka	159	− 5 07	− 5 06	− 4.6	−2.3	0.71
49	Port Egmont	51 18	60 05	4 00	Sitka	159	− 5 22	− 5 21	− 1.4	−2.0	1.07
	TIERRA DEL FUEGO.										
50	San Sebastian Bay	53 15	68 27	4 34	Sitka	159	− 5 51	− 5 50	+ 6.8	−1.0	2.02
51	Cape Penas	53 52	67 33	4 30	Sitka	159	− 6 09	− 6 08	− 0.6	−2.0	1.19
52	Cape San Diego	54 42	65 10	4 21	Sitka	159	− 8 21	− 8 20	− 2.1	−2.1	1.00
53	Staten Island, east end	54 43	63 47	4 15	Tientsin Entrance	177	−10 36	−11 14	− 1.5	−1.1	0.94
54	Goree Road	55 12	67 00	4 28	Tientsin Entrance	177	−11 04	−11 42	− 2.4	−1.2	0.82
55	C. HORN, St. Martin C., Hermite I.	55 51	67 33	4 30	Cape Horn	131	0 00	0 00	0.0	0.0	1.00
56	Diego Ramirez Islands	56 28	68 43	4 35	Cape Horn	131	− 0 17	+ 0 01	+ 0.2	0.0	1.04
57	New Year Sound	56 33	69 56	4 40	Cape Horn	131	− 0 47	− 0 29	+ 0.2	0.0	1.04
58	Noir Island	54 26	73 03	4 52	Cape Horn	131	− 1 46	− 1 28	0.0	0.0	1.00
59	Week Island	53 12	74 21	4 57	Cape Horn	131	− 2 16	− 1 58	0.0	0.0	0.97

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	10 50	4 38	10 35b	4 46a	11.5	14.7	7.7	13.0	1.6	2.6	.....	3.1	7.4	6.7	12.5
2	10 35	4 23	10 24b	4 30a	18.3	23.5	12.3	20.2	2.1	3.3	.....	3.9	11.8	10.4	13.5
3	10 05	3 53	9 55b	3 59a	22.4	28.7	15.0	24.5	2.3	3.6	.....	4.3	14.4	12.5	13.5
4	7 05	0 52	6 50b	1 01a	10.3	13.2	6.9	11.7	1.5	2.5	.....	2.9	6.6	6.0	13.5
5	3 50	10 03	3 37b	10 11b	13.1	16.8	8.8	14.7	1.7	2.8	.....	3.3	8.4	7.6	14.5
6	0 00	6 12	0 13b	6 19b	14.3	18.3	9.6	16.0	1.8	2.9	.....	3.4	9.2	8.4	16.0
7	10 35	4 23	10 25a	4 29b	23.0	29.5	15.4	25.2	2.3	3.7	.....	4.4	14.8	12.9	17.0
8	9 20	3 08	9 10a	3 13b	30.9	39.6	20.7	33.4	2.7	4.3	.....	5.1	19.8	17.1	17.5
9	9 00	2 47	8 51a	2 52b	31.2	40.0	20.9	33.7	2.7	4.3	.....	5.1	20.0	17.2	18.0
10	8 40	2 28	8 32a	2 33b	35.6	45.6	23.9	38.3	2.9	4.6	.....	5.4	22.8	19.5	18.5
11	8 00	1 48	7 51a	1 53b	30.0	38.5	20.1	32.4	2.6	4.2	.....	5.0	19.2	16.6	18.0
12	8 18	2 06	8 09a	2 11b	30.2	38.7	20.2	32.6	2.6	4.2	.....	5.0	19.4	16.7	18.0
13	8 19	2 07	8 10a	2 12b	30.7	39.4	20.6	33.2	2.7	4.3	.....	5.0	19.7	17.0	18.5
14	8 20	2 08	8 11a	2 13b	30.4	39.0	20.4	32.8	2.6	4.2	.....	5.0	19.5	16.8	18.5
15	8 24	2 12	8 14a	2 18b	23.4	30.0	15.7	25.6	2.3	3.7	.....	4.4	15.0	13.1	18.5
16	8 35	2 25	8 26a	2 30b	30.4	39.0	20.4	32.8	2.6	4.2	.....	5.0	19.5	16.8	18.5
17	8 43	2 35	8 34a	2 40b	29.6	38.0	19.8	32.0	2.6	4.2	.....	5.0	19.0	16.4	19.0
18	8 47	2 40	8 38a	2 45b	30.4	39.0	20.4	32.8	2.6	4.2	.....	5.0	19.5	16.8	19.0
19	9 05	3 00	8 52a	3 07b	14.0	18.0	9.4	15.7	1.8	2.9	.....	3.4	9.0	8.1	19.0
20	9 14	3 10	9 02a	3 17b	15.6	20.0	10.5	17.4	1.9	3.0	.....	3.6	10.0	8.9	19.0
21	9 23	3 20	9 11a	3 27b	16.4	21.0	11.0	18.2	1.9	3.1	.....	3.7	10.5	9.3	19.0
22	9 39	3 50	9 39a	3 57b	17.9	23.0	12.0	19.8	2.0	3.3	.....	3.8	11.5	10.2	19.5
23	10 07	4 07	9 47a	4 18b	6.2	7.9	4.2	7.3	1.2	1.9	.....	2.3	4.0	3.8	19.5
24	10 28	4 28	10 07a	4 40b	5.5	7.0	3.7	5.5	1.1	1.8	.....	2.1	3.5	3.4	19.5
25	10 24	4 24	10 04a	4 35b	6.2	8.0	4.2	7.3	1.2	1.9	.....	2.3	4.0	3.8	19.5
26	10 25	4 25	10 07a	4 35b	7.7	9.9	5.2	8.9	1.3	2.1	.....	2.5	5.0	4.6	19.5
27	11 08	5 03	10 38a	5 17b	3.9	5.0	2.6	4.8	0.9	1.5	.....	1.8	2.5	2.6	19.5
28	11 58	5 58	11 35a	6 11b	4.7	6.0	3.1	5.7	1.0	1.7	.....	2.0	3.0	3.0	20.0
29	12 21	6 21	12 01a	6 32b	6.2	8.0	4.2	7.3	1.2	1.9	.....	2.3	4.0	3.8	20.0
30	0 28	6 58	0 07b	7 05b	5.5	7.0	3.7	6.5	1.1	1.8	.....	2.1	3.5	3.4	20.0
31	0 54	7 16	0 34b	7 27b	6.2	8.0	4.2	7.3	1.2	1.9	.....	2.3	4.0	3.8	20.5
32	1 20	7 40	1 00b	7 51b	6.2	8.0	4.2	7.3	1.2	1.9	.....	2.3	4.0	3.8	20.5
33	1 54	8 11	1 30b	8 25b	4.3	5.5	2.9	5.2	1.0	1.6	.....	1.9	2.8	2.8	20.5
34	1 53	8 08	1 38b	8 30b	4.5	5.0	3.9	6.0	1.7	1.2	.....	2.1	2.5	2.9	20.5
35	1 31	7 44	1 15b	8 07b	4.0	4.5	3.5	5.4	1.6	1.1	.....	2.0	2.2	2.6	20.5
36	1 09	7 21	0 52b	7 45b	3.6	4.0	3.1	4.9	1.5	1.1	.....	1.9	2.0	2.4	21.0
37	1 00	7 12	0 43b	7 36b	3.8	4.3	3.3	5.2	1.6	1.1	.....	2.0	2.2	2.5	21.0
38	0 55	7 07	0 41b	7 27b	5.3	6.0	4.6	6.9	1.9	1.3	.....	2.3	3.0	3.4	21.0
39	0 44	6 56	0 30b	7 16b	5.2	5.8	4.5	6.8	1.9	1.3	.....	2.3	2.9	3.3	21.0
40	0 32	6 45	0 15b	7 09b	3.6	4.0	3.1	4.9	1.5	1.1	.....	1.9	2.0	2.4	21.5
															West.
41	5 05	11 18	.....	.....	7.5	10.0	4.6	.....	.....	.....	.....	.....	5.0	.....	16.0
42	5 00	11 13	.....	.....	4.5	6.0	2.7	.....	.....	.....	.....	.....	3.0	.....	17.0
43	3 40	9 53	.....	.....	3.0	4.0	1.8	.....	.....	.....	.....	.....	2.0	.....	18.0
44	3 35	9 48	.....	.....	2.6	3.5	1.6	.....	.....	.....	.....	.....	1.8	.....	18.0
45	7 19	1 11	6 39a	1 23b	1.7	2.3	0.8	2.1	0.3	1.0	2 24	1.0	1.2	1.2	2.0
															East.
46	5 31	11 27	5 04a	11 43a	3.3	4.3	2.2	4.1	0.9	1.4	1 24	1.7	2.2	2.2	13.0
47	5 50	12 03	5 25a	12 18a	3.7	4.8	2.5	4.6	0.9	1.5	.....	1.7	2.4	2.4	13.5
48	7 35	1 23	7 14a	1 35b	5.5	7.1	3.7	6.5	1.1	1.8	.....	2.1	3.6	3.4	14.5
49	7 20	1 08	7 03a	1 18b	8.3	10.7	5.6	9.6	1.4	2.2	.....	2.6	5.4	4.9	14.0
50	6 50	0 38	6 38a	0 45b	15.6	20.0	10.5	17.4	1.9	3.0	.....	3.6	10.0	8.9	18.5
51	6 32	0 20	6 16a	0 29b	9.2	11.8	6.2	10.6	1.5	2.3	.....	2.8	5.9	5.4	18.5
52	4 20	10 33	4 02a	10 43a	7.7	9.9	5.2	8.9	1.3	2.1	.....	2.5	5.0	4.6	17.5
53	4 19	10 32	4 07a	10 49a	6.9	7.8	6.0	8.7	2.1	1.4	.....	2.6	3.9	4.2	17.0
54	3 50	10 03	3 37a	10 22a	6.0	6.7	5.2	7.7	2.0	1.4	.....	2.5	3.4	3.7	18.5
55	4 07	10 02	3 52a	10 24a	4.3	4.8	3.8	5.8	1.7	1.2	1 19	2.1	2.4	2.8	19.0
56	3 50	10 03	3 35a	10 24a	4.5	5.0	3.9	6.0	1.7	1.2	.....	2.1	2.5	2.9	20.0
57	3 20	9 33	3 05a	9 54a	4.5	5.0	3.9	6.0	1.7	1.2	.....	2.1	2.5	2.9	20.0
58	2 20	8 33	2 04a	8 55a	4.3	4.8	3.7	5.7	1.7	1.1	.....	2.1	2.4	2.7	21.0
59	1 50	8 03	1 34a	8 25a	4.2	4.7	3.7	5.6	1.7	1.1	.....	2.1	2.4	2.7	21.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	SOUTH AMERICA (WEST COAST).										
	PATAGONIA—continued.										
	West coast.	*South.*	*West.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Evangelistas Island	52 21	75 08	5 01	Cape Horn	131	−3 11	−2 53	− 0.5	+0.1	0.90
2	Guia Narrows	50 45	74 27	4 58	Cape Horn	131	−1 56	−1 11	+ 1.9	+0.1	1.41
3	Port Henry, Gulf of Trinidad	50 03	75 18	5 01	Cape Horn	131	−3 36	−3 16	− 0.4	0.0	0.93
4	English Narrows	49 04	74 21	4 57	Cape Horn	131	−3 06	−2 21	+ 1.1	+0.1	1.23
5	Port Barbara, Penas Gulf	48 01	75 24	5 02	Cape Horn	131	−3 51	−3 31	+ 0.4	0.0	1.09
6	Port Otway, Penas Gulf	46 54	75 22	5 01	Cape Horn	131	−3 56	−3 36	+ 0.4	0.0	1.09
7	San Andres Bay	46 28	75 30	5 02	Cape Horn	131	−4 01	−3 41	0.0	0.0	1.00
8	Cape Taytao, Anna Pink Bay	45 47	75 06	5 00	Cape Horn	131	−4 06	−3 48	− 0.4	0.0	0.90
9	Vallenar Road	45 16	74 35	4 58	Cape Horn	131	−4 16	−3 58	− 0.4	0.0	0.90
10	Port Low	43 50	73 57	4 56	Cape Horn	131	−4 11	−3 51	+ 1.3	+0.1	1.27
	CHILE.										
11	Huafo or No Mans Island	43 36	74 43	4 59	Valparaiso	135	+2 33	+2 34	+ 1.8	+0.2	1.55
12	Cucao Bay, Chiloe Island	42 40	74 06	4 56	Valparaiso	135	+2 28	+2 27	+ 1.1	+0.1	1.31
13	Port Quellon, Chiloe Island	43 08	73 39	4 55	Valparaiso	135	+3 28	+3 24	+ 9.6	+1.2	3.75
14	Castro, Chiloe Island	42 28	73 46	4 55	Valparaiso	135	+3 49	+3 55	+12.5	+1.5	4.61
15	Calbuco, Ancud Gulf	41 47	73 11	4 53	Valparaiso	135	+3 58	+4 09	+ 9.6	+1.2	3.78
16	Port Montt, Reloncavi Sound	41 30	72 56	4 52	Valparaiso	135	+3 26	+3 37	+13.4	+1.6	4.84
17	Chacao Narrows	41 49	73 32	4 54	Valparaiso	135	+3 38	+3 49	+10.7	+1.3	4.08
18	Port San Carlos de Ancud, Chiloe I.	41 52	73 51	4 55	Valparaiso	135	+2 52	+2 54	+ 1.8	+0.2	1.51
19	Maullin, Maullin River	41 36	73 36	4 54	Valparaiso	135	+3 08	+3 10	+ 3.6	+0.6	2.00
20	Bueno River Entrance	40 14	73 42	4 55	Valparaiso	135	+2 48	+2 47	+ 2.9	+0.3	1.84
21	Chaihuin Bay	39 58	73 37	4 54	Valparaiso	135	+1 23	+1 22	+ 0.4	0.0	1.09
22	Corral, Port Valdivia	39 53	73 27	4 54	Valparaiso	135	+0 48	+0 47	+ 1.4	+0.2	1.41
23	Valdivia	39 50	73 18	4 53	Valparaiso	135	+1 48	+1 44	0.0	0.0	0.99
24	Queule	39 23	73 14	4 53	Valparaiso	135	+0 41	+0 39	+ 0.8	0.0	1.25
25	Imperial or Cautin River Entrance	38 48	73 23	4 54	Valparaiso	135	+0 23	+0 21	+ 1.0	0.0	1.28
26	Mocha Island	38 20	73 57	4 56	Valparaiso	135	+0 43	+0 41	− 0.6	−0.2	0.86
27	Lebu, Lebu River	37 37	73 42	4 55	Valparaiso	135	+0 38	+0 36	+ 0.8	0.0	1.25
28	Yañez Cove	37 22	73 41	4 55	Valparaiso	135	+0 33	+0 29	+ 1.2	0.0	1.35
29	Santa Maria Island Light	37 03	73 32	4 54	Valparaiso	135	+0 33	+0 29	+ 1.8	+0.2	1.55
30	Lota, Arauco Bay	37 06	73 11	4 53	Valparaiso	135	+0 28	+0 24	+ 0.8	0.0	1.25
31	Talcaguano, Concepcion Bay	36 43	73 08	4 53	Valparaiso	135	+0 27	+0 25	+ 1.2	0.0	1.35
32	Tomé, Concepcion Bay	36 37	72 59	4 52	Valparaiso	135	+0 28	+0 27	+ 1.0	0.0	1.28
33	Dichato, Coliumo Bay	36 32	72 58	4 52	Valparaiso	135	+0 29	+0 29	+ 0.8	0.0	1.25
34	Buchupureo	36 04	72 47	4 51	Valparaiso	135	+0 30	+0 31	− 0.7	−0.1	0.79
35	Curanipe	35 48	72 38	4 51	Valparaiso	135	+0 44	+0 44	− 0.5	−0.1	0.86
36	Maule River Entrance	35 19	72 25	4 50	Valparaiso	135	+0 08	+0 09	− 0.3	−0.1	0.92
37	Constitucion, Maule River	35 20	72 24	4 50	Valparaiso	135	+0 29	+0 30	0.0	0.0	0.99
38	Llico	34 45	72 07	4 48	Valparaiso	135	+0 20	+0 22	+ 0.1	−0.1	1.05
39	Pichilemo	34 23	72 00	4 48	Valparaiso	135	+0 16	+0 16	0.0	0.0	1.02
40	Matanza Anchorage	33 58	71 54	4 48	Valparaiso	135	+0 12	−0 06	0.0	0.0	1.02
41	Toro Point	33 45	71 48	4 47	Valparaiso	135	+0 08	+0 09	− 0.2	−0.2	0.95
42	Juan Fernandez Island	33 38	78 53	5 16	Valparaiso	135	−0 06	−0 05	− 0.2	0.0	0.95
43	Port San Antonio	33 34	71 39	4 47	Valparaiso	135	+0 07	+0 08	0.0	0.0	1.02
44	Quintal Road	33 11	71 42	4 47	Valparaiso	135	+0 02	+0 03	0.0	0.0	0.99
45	VALPARAISO	33 02	71 39	4 47	Valparaiso	135	0 00	0 00	0.0	0.0	1.00
46	Quintero Bay	32 46	71 31	4 46	Valparaiso	135	−0 02	−0 01	+ 0.1	−0.1	1.05
47	Port Papudo	32 30	71 28	4 46	Valparaiso	135	−0 05	−0 04	+ 0.1	−0.1	1.05
48	Pichidanqui	32 06	71 33	4 46	Valparaiso	135	−0 07	−0 06	0.0	0.0	0.99
49	Vilos	31 54	71 32	4 46	Valparaiso	135	−0 11	−0 10	+ 0.2	0.0	1.09
50	Oscuro Cove	31 28	71 37	4 46	Valparaiso	135	−0 17	−0 16	+ 0.4	0.0	1.15
51	Tongoi	30 15	71 31	4 46	Valparaiso	135	−0 22	−0 21	+ 0.1	−0.1	1.05
52	Guayacan, Port Herradura	29 58	71 23	4 46	Valparaiso	135	−0 27	−0 26	+ 0.7	+0.1	1.18
53	Coquimbo	29 57	71 22	4 45	Valparaiso	135	−0 39	−0 38	+ 0.8	0.0	1.25
54	Totoralillo	29 29	71 21	4 45	Valparaiso	135	−0 47	−0 46	+ 0.8	0.0	1.25
55	Peña Blanco Road	28 43	71 23	4 46	Valparaiso	135	−1 08	−1 10	+ 0.4	0.0	1.09
56	Port Huasco	28 27	71 15	4 45	Valparaiso	135	−1 14	−1 16	+ 0.8	0.0	1.25
57	Port Carrizal Bajo	28 04	71 12	4 45	Valparaiso	135	−0 47	−0 48	+ 0.8	0.0	1.25
58	Port Copiapo	27 20	70 59	4 44	Valparaiso	135	−1 16	−1 18	+ 1.0	0.0	1.28
59	Caldera	27 04	70 52	4 43	Valparaiso	135	−0 47	−0 49	+ 0.8	0.0	1.25
60	Port Flamenco	26 34	70 44	4 43	Valparaiso	135	−0 37	−0 39	+ 1.0	0.0	1.28
61	Chañaral de las Animas	26 20	70 41	4 43	Valparaiso	135	−0 32	−0 34	+ 0.8	0.0	1.25
62	Lavata Bay	25 39	70 44	4 43	Valparaiso	135	−0 27	−0 29	+ 1.0	0.0	1.28
63	Port Taltal	25 25	70 34	4 42	Valparaiso	135	−0 17	−0 19	+ 0.8	0.0	1.25
64	Grande Point	25 07	70 30	4 42	Valparaiso	135	−0 02	−0 04	+ 1.0	0.0	1.28
65	Paposo	25 03	70 30	4 42	Valparaiso	135	−0 07	−0 09	+ 0.8	0.0	1.25

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	0 55	7 08	0 39a	7 31a	3.9	4.4	3.4	5.3	1.6	1.1	.....	2.0	2.2	2.5	21.0
2	2 10	8 50	1 57a	9 08a	6.1	6.9	5.3	7.5	2.0	1.4	.....	2.5	3.4	3.8	20.5
3	0 30	6 45	0 14a	7 07a	4.0	4.5	3.5	5.4	1.6	1.1	.....	2.0	2.2	2.6	20.5
4	1 00	7 40	0 46a	7 59a	5.3	6.0	4.6	6.9	1.9	1.3	.....	2.3	3.0	3.3	20.0
5	0 15	6 30	0 00a	6 51a	4.7	5.3	4.1	6.2	1.8	1.2	.....	2.2	2.6	3.0	20.0
6	0 10	6 25	— 0 05a	6 46a	4.7	5.3	4.1	6.2	1.8	1.2	.....	2.2	2.6	3.0	19.5
7	0 05	6 20	— 0 11a	6 42a	4.3	4.8	3.7	5.7	1.7	1.1	.....	2.1	2.4	2.7	20.0
8	0 00	6 13	— 0 16a	6 36a	3.9	4.4	3.4	5.3	1.6	1.1	.....	2.0	2.2	2.5	19.5
9	12 15	6 03	11 59b	6 26a	3.9	4.4	3.4	5.3	1.6	1.1	.....	2.0	2.2	2.5	19.0
10	12 20	6 10	12 07b	6 29a	5.5	6.2	4.8	7.1	1.9	1.3	.....	2.3	3.1	3.4	18.0
11	12 10	6 00	12 05b	6 29a	4.7	6.1	3.1	5.7	2.1	0.5	.....	2.1	3.0	2.5	18.5
12	12 05	5 53	11 59b	6 23a	4.0	5.2	2.6	4.9	1.9	0.4	.....	1.9	2.6	2.1	18.0
13	0 35	6 50	0 31a	7 14a	11.4	14.7	7.5	13.0	3.3	0.7	.....	3.3	7.4	5.9	18.0
14	0 01	6 21	— 0 02a	6 37a	14.0	18.0	9.1	15.7	3.6	0.8	.....	3.6	9.0	7.2	18.0
15	1 10	7 35	1 06a	7 58a	11.5	14.8	7.5	13.1	3.3	0.7	.....	3.3	7.4	6.0	17.5
16	0 38	7 03	0 35a	7 19a	14.7	19.0	9.7	16.5	3.7	0.8	.....	3.7	9.5	7.6	17.5
17	0 50	7 15	0 47a	7 32a	12.4	16.0	8.1	14.0	3.4	0.7	.....	3.4	8.0	6.4	17.5
18	0 04	6 20	— 0 01a	6 49a	4.6	5.9	3.0	5.6	2.1	0.5	.....	2.1	3.0	2.4	17.5
19	0 20	6 36	0 15a	7 01a	6.1	7.9	4.0	7.2	2.4	0.5	.....	2.4	4.0	3.2	17.5
20	0 00	6 13	— 0 05a	6 39a	5.6	7.2	3.7	6.7	2.3	0.5	.....	2.3	3.6	2.9	17.5
21	11 00	4 48	10 54b	5 23a	3.3	4.3	2.2	4.2	1.8	0.4	.....	1.8	2.2	1.8	17.0
22	10 25	4 13	10 20b	4 43a	4.3	5.6	2.8	5.2	2.0	0.4	.....	2.0	2.8	2.3	17.0
23	11 25	5 10	11 18b	5 46a	3.0	3.9	2.0	3.8	1.7	0.4	.....	1.7	2.0	1.6	17.0
24	10 18	4 05	10 12b	4 37a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	17.0
25	10 00	3 47	9 54b	4 18a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	17.0
26	10 20	4 07	10 13b	4 46a	2.6	3.3	1.7	3.3	1.6	0.3	.....	1.6	1.6	1.4	17.0
27	10 15	4 02	10 09b	4 34a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	16.5
28	10 10	3 55	10 04b	4 26a	4.1	5.3	2.7	5.0	2.0	0.4	.....	2.0	2.6	2.3	16.5
29	10 10	3 55	10 05b	4 24a	4.7	6.0	3.0	5.7	2.1	0.5	.....	2.1	3.0	2.4	16.5
30	10 05	3 50	9 59b	4 22a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	16.5
31	10 04	3 51	9 58b	4 22a	4.1	5.3	2.7	5.0	2.0	0.4	.....	2.0	2.6	2.3	16.0
32	10 05	3 53	9 59b	4 24a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	16.0
33	10 06	3 55	10 00b	4 27a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	16.0
34	10 07	3 57	10 00b	4 36a	2.4	3.1	1.6	3.1	1.5	0.3	.....	1.5	1.6	1.3	16.0
35	10 21	4 10	10 14b	4 49a	2.6	3.4	1.7	3.3	1.6	0.3	.....	1.6	1.7	1.4	16.0
36	9 45	3 35	9 38b	4 11a	2.8	3.6	1.8	3.6	1.6	0.4	.....	1.6	1.8	1.5	15.5
37	10 06	3 56	9 59b	4 32a	3.0	3.9	2.0	3.8	1.7	0.4	.....	1.7	2.0	1.6	15.5
38	9 57	3 48	9 51b	4 22a	3.2	4.1	2.1	4.0	1.7	0.4	.....	1.7	2.0	1.7	15.0
39	9 53	3 42	9 47b	4 17a	3.1	4.0	2.0	3.9	1.7	0.4	.....	1.7	2.0	1.7	15.0
40	9 49	3 20	9 43b	3 55a	3.1	4.0	2.0	3.9	1.7	0.4	.....	1.7	2.0	1.7	15.0
41	9 45	3 35	9 38b	4 12a	2.9	3.7	1.9	3.7	1.6	0.4	.....	1.7	1.8	1.5	15.0
42	9 30	3 20	9 23b	3 57a	2.9	3.8	1.9	3.7	1.6	0.4	.....	1.7	1.9	1.6	17.0
43	9 44	3 34	9 38b	4 09a	3.1	4.0	2.0	3.9	1.7	0.4	.....	1.7	2.0	1.7	14.5
44	9 39	3 29	9 32b	4 05a	3.0	3.9	2.0	3.8	1.7	0.4	.....	1.7	2.0	1.6	14.5
45	9 37	3 26	9 30b	4 01a	3.0	3.9	2.0	3.8	1.7	0.4	21 02	1.7	2.0	1.6	14.5
46	9 35	3 25	9 29b	3 59a	3.2	4.1	2.1	4.0	1.7	0.4	.....	1.7	2.0	1.7	14.5
47	9 32	3 22	9 26b	3 56a	3.2	4.1	2.1	4.0	1.7	0.4	.....	1.7	2.0	1.7	14.5
48	9 30	3 20	9 23b	3 56a	3.0	3.9	2.0	3.8	1.7	0.4	.....	1.7	2.0	1.6	14.5
49	9 26	3 16	9 20b	3 51a	3.3	4.2	2.1	4.2	1.8	0.4	.....	1.8	2.1	1.7	14.0
50	9 20	3 10	9 14b	3 43a	3.5	4.5	2.3	4.4	1.8	0.4	.....	1.8	2.2	1.8	14.0
51	9 15	3 05	9 09b	3 39a	3.2	4.1	2.1	4.0	1.7	0.4	.....	1.7	2.0	1.7	14.0
52	9 10	3 00	9 04b	3 32a	3.6	4.7	2.4	4.5	1.8	0.4	.....	1.8	2.4	1.9	13.5
53	8 58	2 48	8 52b	3 20a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	13.5
54	8 50	2 40	8 44b	3 12a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	13.5
55	8 29	2 16	8 23b	2 51a	3.3	4.3	2.2	4.2	1.8	0.4	.....	1.8	2.2	1.8	13.0
56	8 23	2 10	8 17b	2 42a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	13.0
57	8 50	2 38	8 44b	3 10a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	13.0
58	8 21	2 08	8 15b	2 39a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	13.0
59	8 50	2 37	8 44b	3 09a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	12.5
60	9 00	2 47	8 54b	3 18a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	12.0
61	9 05	2 52	8 59b	3 24a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	12.0
62	9 10	2 57	9 04b	3 28a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	12.0
63	9 20	3 07	9 14b	3 39a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	12.0
64	9 35	3 22	9 29b	3 53a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	12.0
65	9 30	3 17	9 24b	3 49a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	12.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	SOUTH AMERICA (West Coast)—Continued.										
	CHILE—continued.	South.	West.				Local time.		Mean Low Water Springs.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Blanco Encalada Road	24 22	70 34	4 42	Valparaiso	135	+0 13	+0 11	−0.4	0.0	0.89
2	Antofagasta, Moreno Bay	23 38	70 25	4 42	Valparaiso	135	−0 32	−0 34	+0.7	+0.1	1.18
3	San Luciano, Mejillones del Sur B.	23 06	70 28	4 42	Valparaiso	135	−0 02	−0 04	0.0	0.0	0.99
4	Cobija	22 34	70 18	4 41	Valparaiso	135	+0 07	+0 05	0.0	0.0	1.02
5	Tocopilla	22 05	70 13	4 41	Valparaiso	135	−0 42	−0 44	+0.8	0.0	1.22
6	Point Lobos	21 05	70 13	4 41	Valparaiso	135	−0 37	−0 39	+0.8	0.0	1.25
7	Iquique	20 12	70 10	4 41	Valparaiso	135	−1 02	−1 04	+1.0	0.0	1.28
8	Buena Cove	19 52	70 09	4 41	Valparaiso	135	−1 02	−1 04	+1.3	+0.1	1.38
9	Pisagua River	19 33	70 14	4 41	Valparaiso	135	−1 05	−1 06	+1.0	0.0	1.28
10	Arica	18 28	70 20	4 41	Valparaiso	135	−1 48	−1 49	+1.4	+0.2	1.41
	PERU.										
11	Ilo Road	17 35	71 23	4 46	Valparaiso	135	−1 42	−1 43	+1.2	0.0	1.35
12	Islay Road	16 58	72 10	4 49	Valparaiso	135	−1 58	−1 59	+2.0	+0.2	1.56
13	Port San Juan	15 20	75 09	5 01	Valparaiso	135	−2 50	−2 51	0.0	0.0	0.99
14	Pisco Bay	13 40	76 14	5 05	Valparaiso	135	−3 20	−3 21	−0.2	0.0	0.95
15	Callao Bay	12 02	77 09	5 09	Valparaiso	135	−3 49	−3 50	−0.4	0.0	0.89
16	Huacho Bay	11 08	77 35	5 10	Valparaiso	135	−4 07	−4 08	−0.8	−0.2	0.76
17	Guarmey Bay	10 05	78 08	5 13	Valparaiso	135	−4 28	−4 29	−1.7	−0.3	0.53
18	Ferrol Bay	9 07	78 33	5 14	Valparaiso	135	−4 46	−4 47	−1.7	−0.3	0.53
19	Port Malabrigo	7 40	79 24	5 18	Valparaiso	135	−5 17	−5 18	−1.7	−0.3	0.53
20	Eten Point	6 55	79 52	5 19	Valparaiso	135	−4 32	−4 33	−1.4	−0.2	0.63
21	Paita	5 05	81 06	5 24	Valparaiso	135	+6 09	+6 08	−0.4	0.0	0.89
	ECUADOR.										
22	Santa Clara Island	3 12	80 23	5 22	Valparaiso	135	−5 36	−5 37	+5.4	+0.6	2.67
23	Guayaquil	2 17	79 49	5 19	Valparaiso	135	−2 36	−2 25	+6.2	+0.8	2.80
24	Santa Elena Bay	2 11	80 56	5 24	Valparaiso	135	+5 49	+5 48	+3.6	+0.4	2.01
25	Port Manta	0 56	80 30	5 22	Valparaiso	135	+5 59	+5 58	+3.2	+0.4	1.91
26	Cape Pasado	0 22	80 30	5 22	Valparaiso	135	+6 04	+6 03	+5.4	+0.6	2.58
		North.									
27	Padernales	0 02	80 05	5 20	Valparaiso	135	+6 09	+6 08	+6.1	+0.7	2.76
28	Atacames Bay	0 53	79 54	5 20	Valparaiso	135	−6 11	−1 12	+7.8	+1.0	3.26
29	Santiago River	1 16	79 03	5 16	Valparaiso	135	+6 09	+6 08	+7.8	+1.0	3.26
	Galapagos Islands.	South.									
30	Charles Island	1 13	90 30	6 02	Valparaiso	135	+5 03	+5 02	+1.8	+0.2	1.55
31	Iguana Cove, Albemarle Island	0 58	91 29	6 06	Valparaiso	135	+4 53	+4 52	+2.0	+0.2	1.58
32	Chatham Island	0 47	89 27	5 58	Valparaiso	135	+5 12	+5 11	+2.2	+0.2	1.64
33	Indefatigable Island	0 30	90 15	6 01	Valparaiso	135	+4 52	+4 51	+2.0	+0.2	1.58
34	James Island, N. side	0 13	90 44	6 03	Valparaiso	135	+5 38	+5 37	+1.1	+0.1	1.31
	COLOMBIA—continued.	North.									
35	Tumaco Road	1 51	78 40	5 15	Panama	139	+0 35	+0 34	−2.6	−0.2	0.82
36	Buenaventura	3 52	77 08	5 08	Panama	139	+3 00	+2 59	−2.6	−0.2	0.82
37	Negrillas Rocks	3 52	77 24	5 10	Panama	139	+1 00	+0 59	−2.9	−0.3	0.79
38	Cabita Bay	5 28	77 28	5 10	Panama	139	+0 40	+0 39	−2.6	−0.2	0.81
39	Cupica Bay	6 35	77 23	5 10	Panama	139	+0 30	+0 29	−2.5	−0.3	0.83
40	Pinas Bay	7 34	78 11	5 13	Panama	139	+0 15	+0 14	−2.0	−0.2	0.86
41	Rey Island, Panama Gulf	8 17	78 54	5 16	Panama	139	0 00	−0 01	−0.4	−0.1	0.98
42	Chepo River, Panama Gulf	8 59	79 07	5 16	Panama	139	+0 05	+0 04	0.0	0.0	1.00
43	Panama (Naos I.), Panama Gulf	8 56	79 32	5 18	Panama	139	0 00	0 00	0.0	0.0	1.00
44	Taboga, Panama Gulf	8 48	79 33	5 18	Panama	139	0 00	−0 01	−0.6	0.0	0.95
45	Chame Bay, Panama Gulf	8 38	79 47	5 19	Panama	139	+0 30	+0 28	−0.8	−0.2	0.94
46	Cape Mala, Panama Gulf	7 30	80 00	5 20	Panama	139	+0 10	+0 08	−2.6	−0.4	0.82
47	Bahia Honda	7 43	81 30	5 26	Panama	139	+0 10	+0 08	−4.4	−0.6	0.69
48	Parida Island	8 07	82 20	5 29	Panama	139	+0 15	+0 14	−5.0	−0.6	0.66
	NORTH AMERICA (West Coast).										
	COSTA RICA—continued.										
	West coast.										
49	El Rincon Harbor, Gulf of Dulce	8 44	83 28	5 34	Panama	139	−0 14	−0 15	−5.4	−0.6	0.63
50	Uvita Bay	9 08	83 46	5 35	Panama	139	−0 39	−0 41	−5.8	−0.6	0.60
51	Port Herradura	9 39	84 39	5 39	Panama	139	−0 24	−0 25	−6.2	−0.8	0.56
52	Port Culebra	10 38	85 40	5 43	Panama	139	−0 14	−0 15	−6.2	−0.8	0.56
53	Port Elena	10 58	85 42	5 43	Panama	139	−0 09	−0 11	−5.8	−0.6	0.60

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	9 50	3 37	9 44b	4 14a	2.7	3.5	1.8	3.4	1.6	0.3	.....	1.6	1.8	1.5	11.5
2	9 05	2 52	8 59b	3 24a	3.6	4.7	2.4	4.5	1.8	0.4	.....	1.8	2.4	1.9	11.5
3	9 35	3 22	9 28b	3 58a	3.0	3.9	2.0	3.8	1.7	0.4	.....	1.7	2.0	1.6	11.0
4	9 44	3 31	9 38b	4 06a	3.1	4.0	2.0	3.9	1.7	0.4	.....	1.7	2.0	1.7	11.0
5	8 55	2 42	8 49b	3 14a	3.7	4.8	2.4	4.6	1.9	0.4	.....	1.9	2.4	2.0	10.5
6	9 00	2 47	8 54b	3 18a	3.8	4.9	2.5	4.7	1.9	0.4	.....	1.9	2.4	2.0	10.5
7	8 35	2 22	8 29b	2 53a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	10.0
8	8 65	2 22	8 29b	2 52a	4.2	5.4	2.7	5.1	2.0	0.4	.....	2.0	2.7	2.2	10.0
9	8 32	2 20	8 26b	2 51a	3.9	5.0	2.5	4.8	1.9	0.4	.....	1.9	2.5	2.0	10.0
10	7 49	1 37	7 44b	2 07a	4.3	5.6	2.8	5.2	2.0	0.4	.....	2.0	2.8	2.3	9.5
11	7 55	1 43	7 49b	2 14a	4.1	5.3	2.7	5.0	1.9	0.4	.....	2.0	2.6	2.3	10.0
12	7 39	1 27	7 34b	1 55a	4.8	6.2	3.1	5.8	2.1	0.5	.....	2.1	3.1	2.5	10.0
13	6 47	0 35	6 40b	1 11a	3.0	3.9	2.0	3.8	1.7	0.4	.....	1.7	2.0	1.6	10.5
14	6 16	0 04	6 09b	0 41a	2.9	3.8	1.9	3.7	1.6	0.4	.....	1.7	1.9	1.6	10.0
15	5 47	12 00	5 40b	0 12a	2.7	3.5	1.8	3.4	1.6	0.3	.....	1.6	1.8	1.5	10.0
16	5 29	11 42	5 21b	12 23b	2.3	3.0	1.5	3.0	1.5	0.3	.....	1.5	1.5	1.3	9.5
17	5 08	11 21	4 59b	12 09b	1.6	2.1	1.1	2.2	1.2	0.3	.....	1.2	1.0	0.9	9.5
18	4 50	11 03	4 41b	11 51b	1.6	2.0	1.0	2.2	1.2	0.3	.....	1.2	1.0	0.9	9.0
19	4 19	10 32	4 10b	11 20b	1.6	2.1	1.1	2.2	1.2	0.3	.....	1.2	1.0	0.9	9.0
20	4 04	10 17	3 56b	11 00b	1.9	2.5	1.3	2.3	1.3	0.3	.....	1.3	1.2	1.1	8.5
21	3 20	9 33	3 13b	10 10b	2.7	3.5	1.8	3.4	1.6	0.3	.....	1.6	1.8	1.5	8.5
22	4 00	10 13	3 56b	10 35b	7.8	10.0	5.1	9.1	2.7	0.6	.....	2.7	5.0	4.1	7.5
23	7 00	1 00	6 56b	1 21b	8.5	11.0	5.6	9.8	2.8	0.6	.....	2.8	5.5	4.5	7.5
24	3 00	9 13	2 55b	9 38b	6.1	7.9	4.0	7.2	2.4	0.5	.....	2.4	4.0	3.2	7.5
25	3 10	9 23	3 05b	9 48b	5.8	7.5	3.8	6.9	2.3	0.5	.....	2.3	3.8	3.0	7.0
26	3 15	9 28	3 11b	9 50b	7.7	9.9	5.0	9.0	2.7	0.6	.....	2.7	5.0	4.0	7.0
27	3 20	9 33	3 16b	9 54b	8.4	10.8	5.5	9.7	2.8	0.6	.....	2.8	5.4	4.4	7.0
28	3 25	9 38	3 21b	9 58b	9.9	12.8	6.5	11.3	3.0	0.7	.....	3.1	6.4	5.2	7.0
29	3 20	9 33	3 16b	9 53b	9.9	12.7	6.5	11.3	3.0	0.7	.....	3.1	6.4	5.1	6.5
30	2 10	8 23	2 05b	8 52b	4.7	6.0	3.0	5.7	2.1	0.5	.....	2.1	3.0	2.4	8.0
31	2 00	8 13	1 55b	8 41b	4.8	6.2	3.1	5.8	2.1	0.5	.....	2.1	3.1	2.5	8.0
32	2 20	8 33	2 15b	9 01b	5.0	6.5	3.3	6.1	2.2	0.5	.....	2.2	3.2	2.6	8.0
33	2 00	8 13	1 55b	8 41b	4.8	6.2	3.1	5.8	2.1	0.5	.....	2.1	3.1	2.5	8.0
34	2 45	8 58	2 39b	9 28b	4.0	5.2	2.6	4.9	1.9	0.4	.....	1.9	2.6	2.1	8.0
35	3 35	9 48	3 29a	9 51a	10.3	13.2	7.1	10.4	0.5	0.9	.....	1.1	6.6	5.3	6.5
36	6 00	12 13	5 54a	12 16a	10.3	13.2	7.1	10.4	0.5	0.9	.....	1.1	6.6	5.3	6.0
37	4 00	10 13	3 55a	10 16a	10.0	12.8	6.9	10.1	0.5	0.9	.....	1.0	6.4	5.2	6.0
38	3 40	9 53	3 34a	9 56a	10.2	13.1	7.0	10.3	0.5	0.9	.....	1.1	6.6	5.3	5.5
39	3 30	9 43	3 24a	9 46a	10.4	13.3	7.2	10.5	0.5	0.9	.....	1.1	6.6	5.4	5.0
40	3 15	9 28	3 10a	9 31a	10.8	13.8	7.5	10.9	0.5	1.0	.....	1.1	6.9	5.6	5.0
41	3 00	9 13	2 55a	9 16a	12.3	15.7	8.5	12.4	0.6	1.0	.....	1.2	7.8	6.4	5.0
42	3 05	9 18	3 00a	9 21a	12.6	16.0	8.7	12.7	0.6	1.0	.....	1.2	8.0	6.4	5.0
43	3 00	9 14	2 55a	9 17a	12.6	16.0	8.7	12.7	0.6	1.0	23 24	1.2	8.0	6.4	5.0
44	3 00	9 13	2 55a	9 16a	12.0	15.4	8.3	12.1	0.6	1.0	.....	1.1	7.7	6.2	5.0
45	3 30	9 42	3 25a	9 46a	11.9	15.0	8.1	12.0	0.5	1.0	.....	1.1	7.5	6.0	5.0
46	3 10	9 22	3 04a	9 27a	10.3	13.0	7.0	10.4	0.5	0.9	.....	1.1	6.5	5.3	5.5
47	3 10	9 22	3 04a	9 27a	8.7	11.0	5.9	8.8	0.5	0.8	.....	1.0	5.5	4.4	6.0
48	3 15	9 28	3 09a	9 33a	8.3	10.5	5.7	8.4	0.5	0.8	.....	1.0	5.2	4.2	6.0
49	2 45	8 58	2 39a	9 03a	7.9	10.0	5.4	8.0	0.4	0.8	.....	0.9	5.0	4.0	6.0
50	2 20	8 32	2 14a	8 37a	7.5	9.5	5.1	7.6	0.4	0.8	.....	0.9	4.8	3.8	6.0
51	2 35	8 48	2 28a	8 53a	7.1	9.0	4.9	7.2	0.4	0.7	.....	0.9	4.5	3.6	6.0
52	2 45	8 58	2 38a	9 03a	7.1	9.0	4.9	7.2	0.4	0.7	.....	0.9	4.5	3.6	6.0
53	2 50	9 02	2 44a	9 07a	7.5	9.5	5.1	7.6	0.4	0.8	.....	0.9	4.8	3.8	6.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	NICARAGUA—continued.										
	West coast.	*North.*	*West.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Port San Juan del Sur	11 15	85 53	5 44	Panama	139	+0 01	−0 01	−5.4	−0.6	0.63
2	Corinto Harbor	12 28	87 12	5 49	Panama	139	−0 04	−0 05	−5.0	−0.6	0.66
	HONDURAS—continued.										
	West coast.										
3	Amapala	13 20	87 34	5 50	Panama	139	+0 01	−0 01	−4.4	−0.6	0.69
	SALVADOR.										
4	Port la Union	13 20	87 51	5 51	Panama	139	+0 16	+0 15	−5.0	−0.6	0.66
5	Libertad	13 29	89 19	5 57	Panama	139	+0 06	+0 05	−5.4	−0.6	0.63
6	Acajutla Bay	13 34	89 50	5 59	Panama	139	−0 04	−0 05	−5.8	−0.6	0.60
	GUATEMALA—continued.										
	West coast.										
7	San Jose	13 56	90 49	6 03	Panama	139	−0 08	−0 10	− 6.2	− 0.8	0.56
8	Champerico	14 17	91 55	6 08	Panama	139	−0 08	−0 10	− 6.8	− 0.8	0.53
9	Soconusco Bar	15 05	92 54	6 12	Panama	139	−0 08	−0 10	− 7.2	− 0.8	0.50
	MEXICO—continued.										
	West coast.								*Mean Lower Low Water.*		
10	La Puerta	15 57	93 48	6 15	Panama	139	−0 08	−0 10	− 8.2	− 1.4	0.47
11	Salina Cruz	16 10	95 12	6 21	Panama	139	−0 08	−0 10	− 8.6	− 1.4	0.44
12	Port Sacrificios	15 41	96 14	6 25	Panama	139	−0 08	−0 10	− 9.4	− 1.4	0.37
13	Maldonado	16 33	98 45	6 35	Panama	139	−0 13	−0 14	−10.9	− 1.5	0.25
14	Acapulco	16 52	99 55	6 40	Panama	139	−0 18	−0 20	−12.6	− 1.6	0.13
15	Port Sihuatanejo	17 36	101 32	6 46	San Diego	143	−0 39	−0 39	− 2.8	− 0.6	0.45
16	Manzanillo	19 03	104 21	6 57	San Diego	143	−0 22	−0 22	− 2.5	− 0.5	0.47
17	Chamela or Perula Bay	19 32	105 07	7 00	San Diego	143	−0 22	−0 24	− 2.3	− 0.5	0.52
18	San Blas	21 29	105 17	7 01	San Diego	143	−0 21	−0 25	− 1.8	− 0.4	0.60
19	Mazatlan	23 11	106 27	7 06	San Diego	143	−0 14	−0 19	− 1.6	− 0.4	0.69
	Gulf of California.										
20	Altata, Culiacan River	24 38	107 58	7 12	San Diego	143	+0 45	+0 49	0.0	− 0.2	1.05
21	San Lorenzo Channel	24 22	110 20	7 21	San Diego	143	+0 13	+0 18	− 0.5	− 0.3	0.94
22	La Paz Harbor	24 20	110 22	7 21	San Diego	143	+0 18	+0 24	− 0.4	− 0.2	0.97
23	San Lucas Bay	27 14	112 13	7 29	San Diego	143	+1 53	+2 00	− 0.9	− 0.3	0.84
24	Guaymas Harbor	27 55	110 51	7 23	San Diego	143	+2 06	+2 16	− 0.7	− 0.3	0.89
25	Santa Teresa Bay	28 25	112 52	7 31	San Diego	143	+2 28	+2 37	+ 4.0	0.0	2.02
26	Puerto Refugio	29 33	113 35	7 34	San Diego	143	+3 28	+3 38	+ 4.4	0.0	2.12
27	Tepoca Bay	30 15	112 50	7 31	San Diego	143	+4 23	+4 34	+ 8.4	+ 0.4	3.09
28	Colorado River Entrance	31 45	114 48	7 39	San Diego	143	+5 19	+5 31	+18.6	+ 0.8	5.65
	Lower California, outer coast.										
29	San Jose del Cabo	23 03	109 42	7 19	San Diego	143	−0 46	−0 50	− 1.0	− 0.4	0.81
30	Pequeña Bay, Santa Margarite I.	24 24	111 49	7 27	San Diego	143	−1 11	−1 17	+ 0.2	0.0	1.06
31	Magdalena Bay	24 34	112 09	7 29	San Diego	143	−1 04	−1 07	− 0.3	− 0.3	1.02
32	San Juanico Bay	26 15	112 28	7 30	Kodiak	163	−4 26	−4 21	− 4.0	− 1.0	0.57
33	Abreojos Pt., Ballenas Bay	26 43	113 34	7 34	Kodiak	163	−3 55	−3 50	− 3.2	− 1.0	0.68
34	San Bartolomé Bay	27 40	114 51	7 39	Kodiak	163	−3 55	−4 01	− 2.2	− 1.0	0.84
35	Cerros Island	28 12	115 14	7 41	San Diego	143	−0 16	−0 27	+ 2.4	+ 0.2	1.54
36	Playa Maria Bay	28 55	114 48	7 39	San Diego	143	−0 06	−0 16	+ 2.3	+ 0.2	1.49
37	Rosario Bay	29 54	115 43	7 43	San Diego	143	−0 02	−0 13	+ 1.1	+ 0.1	1.26
38	San Quentin Bay	30 25	115 54	7 44	San Diego	143	+0 02	−0 09	− 0.1	0.0	0.97
39	Colnett Bay	30 57	116 15	7 45	San Diego	143	+0 06	−0 04	+ 0.7	+ 0.1	1.15
40	Ensenada, Todos Santos Bay	31 51	116 36	7 46	San Diego	143	+0 09	−0 03	0.0	0.0	0.99
	CALIFORNIA.						*Time meridian 120° W.*				
41	San Diego Bar	32 40	117 14	7 49	San Diego	143	−0 03	−0 13	+ 0.1	0.0	1.02
42	SAN DIEGO, La Playa	32 42	117 14	7 49	San Diego	143	0 00	0 00	0.0	0.0	1.00
43	San Juan Capistrano	33 27	117 43	7 51	San Diego	143	+0 06	−0 03	− 0.1	0.0	0.97
	San Pedro Channel.										
44	Newport Landing	33 38	117 54	7 52	San Diego	143	+0 16	+0 07	− 0.4	− 0.1	0.92
45	Anaheim Landing	33 43	118 05	7 52	San Diego	143	+0 14	+0 02	+ 0.1	0.0	1.02
46	San Pedro	33 43	118 16	7 53	San Diego	143	+0 08	−0 03	+ 0.3	0.0	1.07
47	Santa Monica	34 01	118 30	7 54	San Diego	143	+0 10	+0 02	0.0	0.0	1.00

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	3 00	9 12	2 54a	9 17a	7.9	10.0	5.4	8.0	0.4	0.8	.....	0.9	5.0	4.0	6.0
2	2 55	9 08	2 49a	9 13a	8.3	10.5	5.7	8.4	0.5	0.8	.....	1.0	5.2	4.2	6.0
3	3 00	9 12	2 54a	9 17a	8.7	11.0	5.9	8.8	0.5	0.8	.....	1.0	5.5	4.4	6.0
4	3 15	9 28	3 09a	9 33a	8.3	10.5	5.7	8.4	0.5	0.8	.....	1.0	5.2	4.2	6.0
5	3 05	9 18	2 59a	9 23a	7.9	10.0	5.4	8.0	0.4	0.8	.....	0.9	5.0	4.0	6.0
6	2 55	9 08	2 49a	9 13a	7.5	9.5	5.1	7.6	0.4	0.8	.....	0.9	4.8	3.8	6.0
7	2 50	9 02	2 43a	9 07a	7.1	9.0	4.9	7.2	0.4	0.7	.....	0.9	4.5	3.6	6.0
8	2 50	9 02	2 43a	9 07a	6.7	8.5	4.6	6.8	0.4	0.7	.....	0.9	4.2	3.4	6.5
9	2 50	9 02	2 43a	9 07a	6.3	8.0	4.3	6.4	0.4	0.7	.....	0.8	4.0	3.2	6.5
10	2 50	9 02	2 43a	9 08a	5.9	7.5	4.0	6.0	0.4	0.7	.....	0.8	3.2	3.0	6.5
11	2 50	9 02	2 42a	9 08a	5.5	7.0	3.8	5.6	0.4	0.7	.....	0.8	3.0	2.8	6.5
12	2 50	9 02	2 42a	9 08a	4.7	6.0	3.2	4.8	0.3	0.6	.....	0.7	2.6	2.4	6.5
13	2 45	8 58	2 35a	9 06a	3.2	4.0	2.2	3.3	0.3	0.5	.....	0.6	1.8	1.7	7.0
14	2 40	8 52	2 27a	9 03a	1.6	2.0	1.1	1.6	0.2	0.4	.....	0.4	0.9	0.9	7.0
15	8 50	2 38	9 10a	2 39b	1.7	2.0	0.9	2.4	0.5	1.3	.....	1.5	1.2	1.3	7.5
16	9 07	2 54	9 50a	2 54b	1.8	1.9	1.3	2.8	0.3	1.5	.....	1.7	1.4	1.6	7.5
17	9 07	2 53	9 25a	3 00b	2.0	2.5	1.1	3.2	0.7	1.6	.....	1.8	1.5	1.7	8.0
18	9 08	2 52	9 00a	3 10b	2.3	3.2	1.0	3.3	0.9	1.7	.....	2.0	1.8	1.8	8.0
19	9 08	2 51	8 16a	3 20b	2.6	3.8	0.9	3.5	1.1	1.9	5 02	2.2	1.9	1.9	9.0
20	10 07	3 59	9 26a	4 22b	4.0	5.8	1.4	5.1	1.4	2.3	.....	2.7	2.8	2.8	9.5
21	9 35	3 28	8 51a	3 52b	3.6	5.3	1.2	4.7	1.3	2.2	.....	2.6	2.5	2.5	9.5
22	9 40	3 34	8 57a	3 58b	3.7	5.4	1.3	4.8	1.3	2.2	.....	2.6	2.6	2.6	9.5
23	11 15	5 10	10 27a	5 37b	3.2	4.7	1.1	4.2	1.2	2.1	.....	2.5	2.3	2.3	11.0
24	11 30	5 26	10 45a	5 51b	3.4	5.0	1.2	4.4	1.3	2.1	.....	2.5	2.4	2.4	11.0
25	11 50	5 47	11 20a	6 04b	7.7	11.2	2.6	9.3	1.9	3.2	.....	3.8	4.9	4.9	11.5
26	0 25	6 48	—0 04b	7 04b	8.1	11.8	2.8	9.7	2.0	3.3	.....	3.9	5.1	5.1	11.5
27	1 29	7 44	0 56b	7 58b	11.8	17.2	4.0	13.8	2.4	4.0	.....	4.7	7.3	7.2	12.0
28	2 15	8 40	1 57b	8 50b	21.6	31.5	7.3	24.2	3.2	5.3	.....	6.4	12.6	12.5	12.5
29	8 36	2 20	7 56a	2 57b	3.1	4.5	1.2	4.1	1.6	1.8	.....	2.5	2.2	2.1	9.0
30	8 17	1 59	7 31a	2 29b	4.0	5.3	2.4	6.1	1.9	2.9	.....	3.6	3.0	3.2	10.0
31	8 25	2 12	7 49a	2 45b	3.8	5.5	1.5	5.0	1.8	2.0	5 04	2.8	2.6	2.5	10.0
32	8 29	2 17	8 10a	2 33b	3.9	5.7	1.6	4.2	0.9	1.1	5 04	1.4	2.3	2.1	10.5
33	9 00	2 48	8 48a	3 01b	4.7	6.7	2.3	4.9	0.9	0.8	6 01	1.2	2.7	2.4	10.5
34	9 00	2 37	8 49a	2 48b	5.8	8.2	2.8	6.0	1.0	0.9	.....	1.3	3.2	4.0	11.0
35	9 05	2 42	8 28a	3 06b	5.9	7.8	3.5	8.4	2.3	3.6	.....	4.3	4.2	4.5	11.5
36	9 15	2 53	8 37a	3 18b	5.7	7.6	3.4	8.1	2.3	3.5	.....	4.3	4.1	4.3	11.5
37	9 19	2 56	8 38a	3 23b	4.8	6.4	2.9	7.0	2.1	3.2	.....	3.9	3.5	3.7	12.0
38	9 23	3 00	8 40a	3 30b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	12.0
39	9 27	3 05	8 44a	3 33b	4.4	5.8	2.6	6.5	2.0	3.1	.....	3.7	3.3	3.5	12.5
40	9 28	3 06	8 43a	3 40b	3.8	5.0	2.2	5.7	1.8	2.8	.....	3.4	2.9	3.1	12.5
41	9 29	3 07	8 46a	3 43b	3.9	5.2	2.3	5.9	1.9	2.9	.....	3.5	3.0	3.2	13.0
42	9 32	3 20	8 48a	3 55b	3.8	5.1	2.3	5.9	2.2	2.7	5 57	3.6	2.9	3.1	13.0
43	9 42	3 21	8 55a	3 51b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.9	3.0	13.5
44	9 45	3 24	8 57a	3 55b	3.5	4.7	2.1	5.4	1.8	2.7	.....	3.3	2.7	2.9	13.5
45	9 43	3 19	8 57a	3 49b	3.9	5.2	2.3	5.9	1.9	2.9	.....	3.5	3.0	3.2	14.0
46	9 36	3 13	8 51a	3 42b	4.1	5.5	2.5	6.2	1.9	3.0	.....	3.6	3.1	3.3	14.0
47	9 37	3 17	8 53a	3 45b	3.8	5.1	2.3	5.9	1.9	2.9	.....	3.5	2.9	3.1	14.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (West Coast)—Continued.										
	CALIFORNIA—continued.						*Time meridian, 120° W.*		*Mean Lower Low Water.*		
	Santa Barbara Channel.	*North.* ° ′	*West.* ° ′	h. m.			h. m.	h. m.	*feet.*	*feet.*	
1	Hueneme Light	34 09	119 13	7 57	San Diego	143	+0 08	+0 03	−0.2	−0.1	0.97
2	San Buenaventura	34 16	119 17	7 57	San Diego	143	+0 29	+0 09	−0.2	−0.1	0.97
3	Santa Barbara Light	34 24	119 43	7 59	San Diego	143	+0 18	+0 05	−0.2	0.0	0.94
4	Gaviota	34 28	120 14	8 01	San Diego	143	+0 14	+0 08	−0.2	0.0	0.94
	Santa Barbara Islands.										
5	Santa Catalina Harbor, Catalina I	33 26	118 29	7 54	San Diego	143	+1 03	+0 55	0.0	0.0	1.00
6	Corral Harbor, San Nicholas I	33 17	119 31	7 58	San Diego	143	−0 03	−0 07	−0.2	−0.1	0.97
7	Prisoner Harbor, Santa Cruz I	34 01	119 41	7 59	San Diego	143	+0 05	−0 04	−0.2	−0.1	0.97
8	Cuyler Harbor, San Miguel I	34 03	120 21	8 01	San Diego	143	+0 03	−0 06	−0.2	−0.1	0.97
	Outer coast.										
9	Lompoc Landing	34 44	120 37	8 02	San Diego	143	+0 36	+0 38	−0.2	0.0	0.94
10	Point Sal	34 54	120 40	8 03	San Diego	143	+0 44	+0 47	−0.2	0.0	0.94
11	San Luis Obispo	35 11	120 44	8 03	San Diego	143	+0 59	+0 59	−0.2	−0.1	0.97
12	Morro, Morro Bay	35 21	120 50	8 03	San Diego	143	+1 13	+1 19	−0.2	−0.1	0.97
13	Cayucos, Estero Bay	35 27	120 55	8 04	San Diego	143	+1 16	+1 22	0.0	0.0	1.00
14	San Simeon	35 39	121 11	8 05	San Diego	143	+1 23	+1 31	0.0	0.0	1.05
15	Monterey Harbor Light	36 37	121 52	8 07	San Francisco Ent	147	−0 59	−0 42	+0.4	+0.1	1.08
16	Santa Cruz Harbor Light	36 57	122 02	8 08	San Francisco Ent	147	−0 47	−0 38	+0.8	+0.2	1.17
17	Half Moon Bay	37 30	122 27	8 10	San Francisco Ent	147	−0 51	−0 39	+0.3	0.0	1.06
18	Southeast Farallon Light	37 42	123 00	8 12	San Francisco Ent	147	−0 57	−0 36	0.0	0.0	1.00
19	San Francisco Bar	37 46	122 38	8 11	San Francisco Ent	147	−0 01	−0 07	−0.1	0.0	0.95
	San Francisco Bay, S. portion.										
20	San Francisco Entr., Fort Point	37 49	122 29	8 10	San Francisco Ent	147	0 00	0 00	0.0	0.0	1.00
21	Presidio	37 48	122 27	8 10	San Francisco Ent	147	+0 04	+0 04	+0.2	+0.1	1.03
22	Alcatraz Light	37 49	122 25	8 10	San Francisco Ent	147	+0 11	+0 13	−0.1	0.0	0.98
23	San Francisco, North Beach	37 48	122 24	8 10	San Francisco Ent	147	+0 26	+0 29	0.0	0.0	1.00
24	San Francisco, Mission street	37 48	122 24	8 10	San Francisco Ent	147	+0 28	+0 31	+0.6	+0.1	1.14
25	Goat Island (Yerba Buena Light)	37 48	122 22	8 09	San Francisco Ent	147	+0 28	+0 33	+0.4	+0.1	1.08
26	Oakland	37 48	122 18	8 09	San Francisco Ent	147	+0 31	+0 38	+0.9	0.0	1.22
27	Alameda	37 46	122 18	8 09	San Francisco Ent	147	+0 40	+0 56	+0.8	+0.2	1.17
28	Point Avisadero	37 44	122 21	8 09	San Francisco Ent	147	+0 32	+0 40	+1.1	+0.2	1.25
29	Roberts Landing	37 41	122 10	8 09	San Francisco Ent	147	+0 50	+1 06	−0.4	0.0	0.89
30	Mt. Eden, Mt. Eden Slough	37 37	122 08	8 09	San Francisco Ent	147	+1 18	+1 44	+0.6	+0.2	1.11
31	Union City, Union City Creek	37 36	122 06	8 08	San Francisco Ent	147	+1 39	+2 07	−1.3	−0.2	0.68
32	San Mateo Point	37 35	122 19	8 09	San Francisco Ent	147	+0 45	+0 56	+1.7	+0.2	1.38
33	Guano Island	37 34	122 15	8 09	San Francisco Ent	147	+0 48	+1 10	+2.4	+0.4	1.54
34	Coyote Hill Creek Entrance	37 34	122 08	8 09	San Francisco Ent	147	+1 00	+1 16	+2.4	+0.4	1.54
35	Johnsons Land'g, Coyote Hill Creek	37 34	122 05	8 08	San Francisco Ent	147	+1 24	+1 45	+2.9	+0.4	1.68
36	Redwood City Creek Entrance	37 31	122 12	8 09	San Francisco Ent	147	+0 56	+1 11	+2.8	+0.4	1.65
37	Mayhews Landing, Newark Slough	37 32	122 04	8 08	San Francisco Ent	147	+1 14	+1 40	+2.6	+0.3	1.63
38	Ravenswood	37 28	122 06	8 08	San Francisco Ent	147	+0 57	+1 22	+2.6	+0.3	1.63
	San Francisco Bay, N. portion.										
39	Sausalito	37 51	122 29	8 10	San Francisco Ent	147	+0 05	+0 19	−0.3	−0.2	0.95
40	Angel Island	37 51	122 26	8 10	San Francisco Ent	147	+0 16	+0 32	−0.4	−0.1	0.92
41	West Berkeley	37 52	122 18	8 09	San Francisco Ent	147	+0 45	+0 51	+0.7	0.0	1.17
42	Point San Quentin	37 56	122 29	8 10	San Francisco Ent	147	+0 58	+1 03	+0.5	0.0	1.11
43	The Brothers Light	37 58	122 26	8 10	San Francisco Ent	147	+1 01	+1 06	+0.6	+0.1	1.14
	San Pablo Bay.										
44	McNears Landing	37 59	122 27	8 10	San Francisco Ent	147	+1 02	+1 04	+0.4	+0.1	1.08
45	Point Wilson	38 01	122 19	8 09	San Francisco Ent	147	+1 40	+1 59	+1.2	+0.2	1.27
46	Petaluma Point	38 06	122 29	8 10	San Francisco Ent	147	+1 06	+1 32	+0.9	0.0	1.22
47	Sonoma Creek Entrance	38 09	122 24	8 10	San Francisco Ent	147	+1 22	+1 48	+0.9	0.0	1.22
	Karquines Strait.										
48	Mare Island Light	38 04	122 15	8 09	San Francisco Ent	147	+1 50	+2 11	+1.2	+0.2	1.27
49	Wheatport	38 03	122 13	8 09	San Francisco Ent	147	+1 55	+2 19	+1.2	+0.2	1.27
50	Benicia	38 03	122 08	8 09	San Francisco Ent	147	+2 20	+2 44	+1.2	+0.2	1.27
	Suisun Bay.										
51	Seal Bluff	38 03	122 03	8 08	San Francisco Ent	147	+2 27	+3 05	+1.4	+0.2	1.33
52	Suisun Creek Entrance	38 07	122 04	8 08	San Francisco Ent	147	+2 39	+3 17	+1.2	+0.2	1.27
53	Antioch, San Joaquin River	38 01	121 49	8 07	San Francisco Ent	147	+3 54	+4 53	+0.3	0.0	1.06

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	9 32	3 15	8 45a	3 45b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	14.5
2	9 53	3 21	9 06a	3 51b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	14.5
3	9 37	3 15	8 49a	3 46b	3.6	4.8	2.2	5.5	1.8	2.8	.....	3.4	2.8	3.0	14.5
4	9 34	3 16	8 46a	3 47b	3.6	4.8	2.2	5.5	1.8	2.8	.....	3.4	2.8	3.0	14.5
5	9 28	3 08	8 41a	3 38b	3.8	5.1	2.3	5.9	1.9	2.9	.....	3.5	2.9	3.1	13.5
6	9 20	3 04	8 33a	3 34b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	14.0
7	9 29	3 06	8 42a	3 36b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	14.5
8	9 23	3 02	8 36a	3 32b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	14.5
9	9 55	3 45	9 07a	4 16b	3.6	4.8	2.2	5.5	1.8	2.8	.....	3.4	2.8	3.0	15.0
10	10 02	3 53	9 14a	4 24b	3.6	4.8	2.2	5.5	1.8	2.8	.....	3.4	2.8	3.0	15.0
11	10 17	4 05	9 30a	4 35b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	15.0
12	10 31	4 25	9 44a	4 55b	3.7	4.9	2.2	5.6	1.8	2.8	.....	3.4	2.8	3.0	15.0
13	10 33	4 27	9 46a	4 57b	3.8	5.1	2.3	5.8	1.9	2.9	.....	3.5	2.9	3.1	15.5
14	10 38	4 34	9 52a	5 04b	4.0	5.3	2.4	6.1	1.9	2.9	.....	3.6	3.0	3.2	15.5
15	10 43	4 24	9 43a	4 43b	4.0	4.8	3.1	6.8	1.5	4.0	.....	4.3	3.4	3.9	16.0
16	10 54	4 27	9 57a	4 45b	4.3	5.2	3.3	7.1	1.5	4.1	.....	4.4	3.6	4.1	16.0
17	10 48	4 24	9 48a	4 43b	3.9	4.7	3.0	6.6	1.4	3.9	.....	4.2	3.3	3.8	16.5
18	10 40	4 25	9 38a	4 45b	3.7	4.5	2.9	6.3	1.4	3.8	.....	4.1	3.2	3.6	16.5
19	11 37	4 55	10 35a	5 16b	3.5	4.2	2.7	6.1	1.4	3.7	.....	4.0	3.1	3.5	16.5
20	11 39	5 08	10 36a	5 24b	3.7	4.5	2.9	6.2	1.5	3.7	6 40	4.0	3.2	3.5	16.5
21	11 43	5 07	10 40a	5 27b	3.8	4.6	2.9	6.5	1.4	3.9	.....	4.2	3.3	3.7	16.5
22	11 50	5 16	10 46a	5 37b	3.6	4.4	2.8	6.2	1.4	3.8	.....	4.1	3.1	3.5	16.5
23	12 05	5 32	11 05a	5 51b	3.7	4.5	2.8	6.3	1.4	3.8	.....	4.1	3.2	3.6	16.5
24	12 07	5 34	11 08a	5 53b	4.2	5.1	3.2	7.1	1.5	4.0	.....	4.4	3.5	4.1	16.5
25	12 08	5 37	11 08a	5 56b	4.0	4.8	3.1	6.8	1.5	4.0	.....	4.3	3.4	3.9	16.5
26	12 11	5 42	11 19a	6 02b	4.5	5.4	3.6	7.3	1.6	4.0	.....	4.4	3.6	4.2	16.5
27	12 20	6 00	11 23a	6 18b	4.3	5.2	3.3	7.1	1.5	4.1	.....	4.4	3.6	4.1	16.5
28	12 12	5 44	11 16a	6 02b	4.6	5.6	3.5	7.5	1.6	4.2	.....	4.6	3.8	4.4	16.5
29	0 05	6 10	−1 01b	6 31b	3.3	4.0	2.5	5.8	1.3	3.6	.....	3.9	2.9	3.2	16.5
30	0 33	6 48	−0 26b	7 07b	4.1	5.0	3.2	6.8	1.5	4.0	.....	4.3	3.5	4.0	16.5
31	0 55	7 12	−0 21b	7 36b	2.5	3.0	1.9	4.6	1.2	3.1	.....	3.4	2.4	2.7	16.5
32	0 00	6 00	−0 53b	6 17b	5.1	6.2	3.9	8.2	1.6	4.5	.....	4.8	4.1	4.8	16.5
33	0 03	6 14	−0 47b	6 31b	5.7	6.9	4.4	8.9	1.8	4.7	.....	5.1	4.5	5.2	16.5
34	0 15	6 20	−0 35b	6 37b	5.7	6.9	4.4	8.9	1.8	4.7	.....	5.1	4.5	5.2	16.5
35	0 40	6 50	−0 08b	7 06b	6.2	7.5	4.8	9.6	1.8	4.9	.....	5.3	4.8	5.5	16.5
36	0 11	6 15	−0 38b	6 31b	6.1	7.4	4.7	9.4	1.8	4.9	.....	5.3	4.6	5.4	16.5
37	0 30	6 45	−0 19b	7 02b	6.0	7.2	4.6	9.3	1.8	4.8	.....	5.2	4.6	5.4	16.5
38	0 13	6 27	−0 36b	6 44b	6.0	7.2	4.6	9.3	1.8	4.8	.....	5.2	4.6	5.4	16.5
39	11 44	5 22	10 45a	5 45b	3.5	4.2	2.7	6.0	1.5	3.5	6 59	3.8	2.9	3.4	16.5
40	11 55	5 35	10 56a	5 57b	3.4	4.1	2.7	5.9	1.5	3.5	.....	3.8	2.9	3.3	16.5
41	0 00	5 55	−0 53b	6 15b	4.3	5.2	3.4	7.1	1.7	3.9	.....	4.3	3.5	4.0	17.0
42	0 12	6 06	−0 42b	6 26b	4.1	4.9	3.2	6.8	1.6	3.8	.....	4.2	3.4	3.8	17.0
43	0 15	6 09	−0 38b	6 29b	4.2	5.0	3.3	6.9	1.6	3.9	.....	4.2	3.5	3.9	17.0
44	0 16	6 07	−0 30b	6 35b	4.0	4.8	3.1	6.8	1.5	4.0	.....	4.3	3.4	3.9	17.0
45	0 55	7 03	0 04b	7 22b	4.7	5.6	3.7	7.6	1.7	4.1	.....	4.5	3.8	4.3	17.0
46	0 20	6 35	−0 28b	6 59b	4.5	5.4	3.5	7.4	1.7	4.0	.....	4.4	3.6	4.2	17.0
47	0 36	6 51	−0 16b	7 11b	4.5	5.4	3.5	7.4	1.7	4.0	.....	4.4	3.6	4.2	17.0
48	1 05	7 15	0 10b	7 29b	4.7	5.6	3.7	7.6	1.7	4.1	.....	4.5	3.8	4.3	17.0
49	1 10	7 23	0 19b	7 42b	4.7	5.6	3.7	7.6	1.7	4.1	.....	4.5	3.8	4.3	17.0
50	1 35	7 48	0 43b	8 08b	4.7	5.6	3.7	7.6	1.7	4.1	.....	4.5	3.8	4.3	17.0
51	1 43	8 10	0 53b	8 29b	4.9	5.9	3.8	7.9	1.8	4.2	.....	4.6	3.9	4.5	17.0
52	1 55	8 22	1 04b	8 41b	4.7	5.6	3.7	7.6	1.7	4.1	.....	4.5	3.8	4.3	17.0
53	3 11	9 59	2 15b	10 20b	3.9	4.7	3.0	6.6	1.6	3.7	.....	4.1	3.3	3.7	17.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	CALIFORNIA—continued.										
	Sacramento River.	*North.*	*West.*				*Time meridian, 120° W.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Collinsville	38 04	121 51	8 07	San Francisco Ent	147	+8 21	+ 4 15	+0.3	0.0	1.06
2	Sacramento	38 33	121 30	8 06	San Francisco Ent	147	+8 03	+10 24	−2.6	−0.4	0.41
	Outer coast.										
3	Drakes Bay	38 01	122 53	8 12	San Francisco Ent	147	−0 04	+ 0 16	+0.8	+0.2	1.17
4	Point Reyes Light	38 00	123 01	8 12	San Francisco Ent	147	−0 14	+ 0 07	+0.6	+0.1	1.14
5	Tomales Bay	38 14	122 58	8 12	San Francisco Ent	147	+0 23	+ 0 49	0.0	0.0	1.00
6	Bodega Bay	38 18	123 00	8 12	San Francisco Ent	147	−0 18	+ 0 02	+0.2	+0.1	1.03
7	Fort Ross	38 31	123 15	8 13	San Francisco Ent	147	−0 31	− 0 11	0.0	0.0	1.00
8	Point Arena Light	38 57	123 44	8 15	San Francisco Ent	147	−0 58	− 0 37	−0.3	0.0	0.92
9	Navarro River Entrance	39 12	123 45	8 15	San Francisco Ent	147	−0 55	− 0 33	−0.1	0.0	0.98
10	Little River Harbor	39 16	123 47	8 15	San Francisco Ent	147	−1 04	− 0 41	+0.4	+0.1	1.08
11	Mendocino Bay	39 18	123 47	8 15	San Francisco Ent	147	−0 59	− 0 34	+0.1	0.0	1.03
12	Fort Bragg Landing	39 26	123 49	8 15	San Francisco Ent	147	−0 34	− 0 08	+0.3	0.0	1.06
13	Westport	39 38	123 47	8 15	San Francisco Ent	147	−0 34	− 0 14	+0.4	+0.1	1.08
14	Shelter Cove	40 02	124 03	8 16	San Francisco Ent	147	−0 43	− 0 22	+0.4	+0.1	1.08
15	Cape Mendocino Bay	40 26	124 25	8 18	San Francisco Ent	147	−0 31	− 0 05	+0.3	0.0	1.06
16	Eel River Bar	40 38	124 19	8 17	Astoria	151	−1 28	− 1 45	−2.1	−0.2	0.70
17	Humboldt Bay Bar	40 45	124 15	8 17	Astoria	151	−1 05	− 1 21	−2.2	−0.2	0.68
18	Red Bluff, Humboldt Bay	40 45	124 13	8 17	Astoria	151	−0 59	− 1 15	−2.1	−0.2	0.70
19	Eureka, Hun boldt Bay	40 48	124 10	8 17	Astoria	151	−0 41	− 0 55	−1.9	−0.2	0.73
20	Trinidad Harbor Light	41 03	124 09	8 17	Astoria	151	−1 11	− 1 29	−1.9	−0.2	0.73
21	Crescent City Light	41 45	124 12	8 17	Astoria	151	−1 05	− 1 25	−1.8	−0.2	0.75
	OREGON.										
22	Chetko Cove	42 03	124 16	8 17	Astoria	151	−0 57	− 1 15	−2.0	−0.2	0.71
23	Rogue River	42 25	124 25	8 18	Astoria	151	−0 55	− 1 00	−2.0	−0.2	0.71
24	Port Orford	42 44	124 30	8 18	Astoria	151	−1 05	− 1 24	−1.7	−0.2	0.76
25	Bandon, Coquille River	43 07	124 25	8 18	Astoria	151	−1 05	− 0 55	−2.3	−0.2	0.67
	Coos Bay.										
26	Coos Bay Bar	43 21	124 21	8 17	Astoria	151	−0 43	− 0 51	−1.7	−0.2	0.76
27	Empire	43 24	124 17	8 17	Astoria	151	0 00	+ 0 01	−2.6	−0.2	0.62
28	North Bend	43 25	124 14	8 17	Astoria	151	+0 40	+ 0 44	−2.4	−0.2	0.65
29	Marshfield	43 22	124 13	8 17	Astoria	151	+1 51	+ 1 19	−2.1	−0.2	0.70
	Umpqua River.										
30	Bar at Entrance	43 41	124 12	8 17	Astoria	151	−0 08	− 0 10	−1.4	−0.1	0.79
31	Gardiner	43 44	124 06	8 16	Astoria	151	+0 14	+ 0 27	−1.4	−0.2	0.81
	Outer coast.										
32	Siuslaw River Entrance	44 01	124 07	8 16	Astoria	151	−0 30	− 0 16	−1.2	−0.1	0.83
33	Alseya Harbor Entrance	44 28	124 06	8 16	Astoria	151	−0 38	− 0 49	−0.5	0.0	0.92
	Yaquina Bay and River.										
34	Bar at Entrance	44 37	124 05	8 16	Astoria	151	−0 49	− 1 04	−0.4	0.0	0.94
35	Newport	44 38	124 04	8 16	Astoria	151	−0 45	− 1 03	−0.2	0.0	0.97
36	Yaquina City	44 36	124 02	8 16	Astoria	151	−0 32	− 0 41	−0.1	0.0	0.98
37	Oysterville	44 35	124 01	8 16	Astoria	151	−0 19	− 0 20	0.0	0.0	1.00
	Outer coast.										
38	Nestugga Bay Entrance	45 09	123 59	8 16	Astoria	151	−0 27	− 0 30	−0.5	0.0	0.92
39	Hobsonville, Tillamook Bay	45 34	123 57	8 16	Astoria	151	−0 08	− 0 18	0.0	0.0	1.00
40	Nehalem River Entrance	45 40	123 56	8 16	Astoria	151	−0 31	− 0 44	−0.2	0.0	0.97
	OREGON AND WASHINGTON.										
	Columbia River.										
41	Columbia River Bar, Oreg	46 13	124 05	8 16	Astoria	151	−0 29	− 0 31	−0.2	0.0	0.97
42	Point Adams (Clatsop), Oreg	46 12	123 59	8 16	Astoria	151	−0 09	− 0 12	−0.1	0.0	0.98
43	Cape Disappointment, Wash	46 17	124 03	8 16	Astoria	151	−0 17	− 0 22	−0.1	0.0	0.98
44	ASTORIA, Oreg	46 11	123 50	8 15	Astoria	151	0 00	0 00	0.0	0.0	1.00
45	Skeppernawin Creek, Oreg	46 10	123 55	8 16	Astoria	151	−0 02	+ 0 05	+0.2	0.0	1.03
46	Tongue Point, Oreg	46 13	123 46	8 15	Astoria	151	+0 19	+ 0 30	−0.1	0.0	0.98
47	Marsh Island Creek, Oreg	46 14	123 35	8 14	Astoria	151	+0 41	+ 0 54	−0.5	0.0	0.92
48	Three Tree Point, Wash	46 16	123 31	8 14	Astoria	151	+1 03	+ 1 16	−0.8	0.0	0.87
49	Cathlamet, Wash	46 12	123 23	8 14	San Diego	143	+5 12	+ 6 11	+1.2	+0.1	1.28
50	Eagle Cliff, Wash	46 11	123 12	8 13	San Diego	143	+5 34	+ 7 06	0.0	0.0	0.99
51	Oak Point, Wash	46 11	123 11	8 13	San Diego	143	+5 49	+ 7 17	−0.2	−0.1	0.97

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	2 38	9 21	1 42b	9 42b	3.9	4.7	3.0	6.6	1.6	3.7	.....	4.1	3.3	3.7	17.0
2	7 21	3 06	5 52b	3 39a	1.5	1.8	1.2	3.2	1.0	2.3	.....	2.5	1.6	1.8	17.0
3	11 33	5 17	10 36a	5 35b	4.3	5.2	3.3	7.1	1.5	4.1	.....	4.4	3.6	4.1	17.0
4	11 23	5 08	10 24a	5 27b	4.2	5.1	3.2	7.1	1.5	4.0	.....	4.4	3.5	4.1	17.0
5	12 00	5 50	10 58a	6 10b	3.7	4.5	2.9	6.3	1.4	3.8	.....	4.1	3.2	3.6	17.0
6	11 19	5 03	10 17a	5 23b	3.8	4.6	2.9	6.5	1.4	3.9	.....	4.2	3.3	3.7	17.0
7	11 05	4 49	10 08a	5 09b	3.7	4.5	2.9	6.3	1.4	3.8	.....	4.1	3.2	3.6	17.0
8	10 36	4 21	9 32a	4 42b	3.4	4.1	2.6	5.9	1.3	3.6	.....	3.9	3.0	3.3	17.5
9	10 39	4 25	9 35a	4 46b	3.6	4.4	2.8	6.2	1.4	3.8	.....	4.1	3.1	3.5	17.5
10	10 30	4 17	9 30a	4 36b	4.0	4.8	3.1	6.8	1.5	4.0	.....	4.3	3.4	3.9	17.5
11	10 35	4 24	9 33a	4 44b	3.8	4.6	2.9	6.5	1.4	3.9	.....	4.2	3.2	3.7	17.5
12	11 00	4 50	10 00a	5 09b	3.9	4.7	3.0	6.6	1.4	3.9	.....	4.2	3.3	3.8	17.5
13	11 00	4 44	10 00a	5 03b	4.0	4.8	3.1	6.8	1.5	4.0	.....	4.3	3.4	3.9	18.0
14	10 50	4 35	9 50a	4 54b	4.0	4.8	3.1	6.8	1.5	4.0	.....	4.3	3.4	3.9	18.0
15	11 00	4 50	10 00a	5 09b	3.9	4.7	3.0	6.6	1.4	3.9	.....	4.2	3.3	3.8	18.0
16	11 10	4 55	10 28a	5 15b	4.4	5.5	3.2	6.5	1.6	3.1	.....	3.5	3.3	3.6	18.0
17	11 33	5 19	10 51a	5 39b	4.3	5.3	3.1	6.4	1.6	3.0	.....	3.5	3.2	3.5	18.5
18	11 39	5 25	10 57a	5 45b	4.4	5.5	3.2	6.5	1.6	3.1	.....	3.5	3.3	3.6	18.5
19	11 57	5 45	11 16a	6 05b	4.6	5.7	3.3	6.7	1.6	3.1	.....	3.6	3.4	3.7	18.5
20	11 27	5 11	10 46a	5 31b	4.6	5.7	3.3	6.7	1.6	3.1	.....	3.6	3.4	3.7	18.5
21	11 33	5 15	10 53a	5 34b	4.7	5.8	3.4	6.9	1.6	3.2	.....	3.6	3.5	3.8	19.0
22	11 41	5 25	11 00a	5 45b	4.5	5.6	3.2	6.5	1.6	3.1	.....	3.5	3.4	3.6	19.0
23	11 42	5 39	11 01a	5 59b	4.5	5.6	3.2	6.5	1.6	3.1	.....	3.5	3.4	3.6	19.5
24	11 32	5 15	10 52a	5 34b	4.8	6.0	3.5	7.0	1.7	3.2	.....	3.7	3.5	3.8	19.5
25	11 32	5 44	10 50a	6 04b	4.2	5.2	3.0	6.3	1.6	3.0	.....	3.4	3.2	3.5	19.5
26	11 55	5 49	11 15a	6 08b	4.8	6.0	3.5	7.0	1.7	3.2	.....	3.7	3.5	3.8	20.0
27	0 13	6 41	— 0 31b	7 02b	3.9	4.8	2.8	5.9	1.5	2.9	.....	3.3	3.0	3.3	20.0
28	0 53	7 24	0 10b	7 45b	4.1	5.1	3.0	6.1	1.5	3.0	.....	3.4	3.1	3.4	20.0
29	2 04	7 59	1 22b	8 19b	4.4	5.3	3.2	6.5	1.6	3.1	.....	3.5	3.3	3.6	20.0
30	0 05	6 30	— 0 33b	6 48b	5.0	6.2	3.6	7.3	1.7	3.3	.....	3.7	3.7	4.0	20.0
31	0 36	7 08	— 0 08b	7 27b	5.1	6.3	3.7	7.4	1.7	3.3	.....	3.8	3.7	4.0	20.0
32	12 09	6 25	11 31a	6 43b	5.2	6.5	3.7	7.5	1.7	3.4	.....	3.8	3.8	4.1	20.5
33	12 01	5 52	11 25a	6 09b	5.8	7.2	4.2	8.2	1.8	3.5	.....	4.0	4.2	4.5	20.5
34	11 50	5 37	11 14a	5 54b	5.9	7.3	4.3	8.3	1.8	3.6	.....	4.1	4.2	4.7	21.0
35	11 54	5 38	11 19a	5 55b	6.1	7.6	4.4	8.6	1.9	3.6	.....	4.1	4.3	4.7	21.0
36	12 07	6 00	11 32a	6 17b	6.2	7.7	4.5	8.7	1.9	3.7	.....	4.2	4.4	4.8	20.5
37	12 20	6 21	11 45a	6 38b	6.3	7.8	4.5	8.8	1.9	3.7	.....	4.2	4.5	4.9	20.5
38	12 12	6 11	11 36a	6 28b	5.8	7.2	4.2	8.2	1.9	3.5	.....	4.0	4.2	4.5	21.0
39	12 31	6 23	11 56a	6 40b	6.3	7.8	4.5	8.8	1.9	3.7	.....	4.2	4.5	4.9	21.5
40	12 08	5 57	11 33a	6 14b	6.1	7.6	4.4	8.6	1.9	3.6	.....	4.1	4.3	4.7	21.5
41	12 10	6 10	11 35a	6 27b	6.1	7.6	4.4	8.6	1.9	3.6	.....	4.1	4.3	4.7	22.0
42	0 05	6 29	— 0 30b	6 46b	6.2	7.7	4.5	8.7	1.9	3.7	.....	4.2	4.4	4.8	22.0
43	12 22	6 19	11 47a	6 36b	6.2	7.7	4.5	8.7	1.9	3.7	.....	4.2	4.4	4.8	22.0
44	0 15	6 42	— 0 22b	6 59b	6.4	7.8	4.7	8.6	1.9	3.8	8 19	4.3	4.5	4.7	22.0
45	0 12	6 46	— 0 22b	7 02b	6.5	8.1	4.7	9.0	1.9	3.7	.....	4.3	4.6	4.9	22.0
46	0 34	7 12	— 0 01b	7 29b	6.2	7.7	4.5	8.7	1.9	3.7	.....	4.2	4.4	4.8	22.0
47	0 57	7 37	0 21b	7 54b	5.8	7.2	4.2	8.2	1.8	3.5	.....	4.0	4.2	4.5	22.0
48	1 19	7 59	0 42b	8 17b	5.5	6.8	4.0	7.9	1.8	3.5	.....	3.9	4.0	4.3	22.0
49	1 53	9 05	1 13b	9 24b	4.9	6.1	3.5	7.2	1.7	3.3	.....	3.7	3.6	3.9	21.5
50	2 16	10 01	1 31b	10 23b	3.8	4.7	2.7	5.8	1.5	2.9	.....	3.3	2.9	3.2	21.5
51	2 31	10 12	1 46b	10 34b	3.7	4.6	2.7	5.6	1.5	2.8	.....	3.2	2.8	3.1	21.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	OREGON AND WASHINGTON—cont'd.										
	Columbia River—Continued.	*North.* ° ′	*West.* ° ′	h. m.			*Time meridian, 120° W.* h. m.	h. m.	*Mean Lower Low Water.* feet.	feet.	
1	Rinearson, Oreg	46 08	123 05	8 12	San Diego	143	+6 12	+ 7 38	−0.7	−0.1	0.84
2	Rainier, Oreg	46 05	122 56	8 12	San Diego	143	+6 25	+ 7 59	−1.1	−0.2	0.76
3	Kalama, Wash	46 00	122 51	8 11	San Diego	143	+6 55	+ 8 28	−1.4	−0.2	0.68
4	St. Helens Bar, Oreg	45 51	122 48	8 11	San Diego	143	+7 56	+ 9 28	−2.1	−0.3	0.52
5	Willamette River Entrance, Oreg	45 39	122 46	8 11	San Diego	143	+9 27	+10 55	−3.2	−0.5	0.29
6	Old Fort Vancouver, Wash	45 37	122 39	8 11	San Diego	143	+9 58	+11 29	−3.5	−0.5	0.21
	WASHINGTON—continued.										
7	Willapa Bay Entrance	46 38	124 06	8 16	Astoria	151	−0 14	− 0 41	−0.1	0.0	0.98
8	South Bend, Willapa Bay	46 40	123 48	8 15	Astoria	151	+0 30	− 0 07	+1.4	+0.2	1.19
9	Oysterville, Willapa Bay	46 32	124 02	8 16	Astoria	151	+0 21	− 0 11	+1.2	+0.1	1.17
10	Sealand, Willapa Bay	46 29	124 02	8 16	Astoria	151	+0 31	− 0 01	+1.2	+0.1	1.17
11	Grays Harbor Entrance	46 54	124 10	8 17	Astoria	151	−0 23	− 0 55	+0.6	0.0	1.10
12	Hoquiam, Grays Harbor	46 58	123 53	8 16	Astoria	151	+0 12	− 0 13	+2.2	+0.2	1.32
13	Laidlaw, Grays Harbor	46 52	124 05	8 16	Astoria	151	−0 10	− 0 13	+0.8	+0.1	1.11
14	Destruction Island	47 40	124 30	8 18	Astoria	151	−0 37	− 0 44	+1.0	0.0	1.16
15	Quillihute River	47 53	124 39	8 19	Astoria	151	−0 18	− 0 38	+0.4	0.0	1.06
16	Cape Alava (Flattery Rocks)	48 10	124 44	8 19	Astoria	151	−0 29	− 0 36	+0.8	0.0	1.13
	Juan de Fuca Strait.										
17	Cape Flattery Lt., Tatoosh Island	48 23	124 44	8 19	Astoria	151	−0 03	− 0 22	−0.8	0.0	0.90
18	Neah Bay	48 22	124 38	8 19	Astoria	151	−0 11	− 0 20	−0.7	−0.1	0.92
19	Pysht River Entrance	48 13	124 07	8 16	Astoria	151	+1 03	+ 0 35	−1.2	−0.2	0.84
20	Port Angeles	48 08	123 26	8 14	Port Townsend	155	−1 33	− 1 06	−2.3	−1.5	0.85
21	New Dungeness Light	48 09	123 07	8 12	Port Townsend	155	−1 04	− 0 57	−2.6	−1.6	0.80
22	Washington Harbor	48 04	123 02	8 12	Port Townsend	155	−0 40	− 0 29	−1.9	−1.5	0.92
23	Port Discovery	48 02	122 52	8 11	Port Townsend	155	−0 28	− 0 20	−1.8	−1.4	0.94
24	Smith Island Light	48 19	122 51	8 11	Port Townsend	155	−0 07	− 0 04	−2.0	−1.6	0.90
25	Partridge Point	48 14	122 46	8 11	Port Townsend	155	−0 01	− 0 02	−1.6	−1.4	0.96
	Admiralty Inlet.								*Two feet below Mean Lower Low Water.*		
26	PORT TOWNSEND	48 07	122 45	8 11	Port Townsend	155	0 00	0 00	0.0	0.0	1.00
27	Marrowstone Point	48 06	122 41	8 11	Port Townsend	155	+0 09	+ 0 15	+0.8	+0.4	1.07
28	Oak Bay	48 01	122 43	8 11	Port Townsend	155	+0 11	+ 0 19	+1.4	+0.6	1.15
	Hood Canal.										
29	Port Ludlow	47 56	122 41	8 11	Port Townsend	155	+0 13	+ 0 24	+1.9	+0.8	1.21
30	Port Gamble	47 51	122 34	8 10	Port Townsend	155	+0 15	+ 0 27	+2.4	+0.9	1.28
31	Seabeck	47 38	122 49	8 11	Port Townsend	155	+0 47	+ 1 01	+4.2	+1.4	1.53
32	Union City	47 21	123 06	8 12	Port Townsend	155	+0 32	+ 0 59	+4.4	+1.5	1.55
	Puget Sound.										
33	Point No Point Light	47 55	122 32	8 10	Port Townsend	155	+0 19	+ 0 29	+2.2	+0.8	1.26
34	Point Madison	47 44	122 32	8 10	Port Townsend	155	+0 32	+ 0 50	+2.9	+0.5	1.44
35	West Point Light, Shilshole Bay	47 39	122 26	8 10	Port Townsend	155	+0 33	+ 0 57	+3.0	+0.6	1.46
36	Seattle, Elliott Bay	47 37	122 20	8 09	Port Townsend	155	+0 33	+ 0 59	+3.1	+0.7	1.48
37	Port Blakely	47 36	122 31	8 10	Port Townsend	155	+0 37	+ 0 56	+4.0	+1.4	1.49
38	Bremerton, Port Orchard Naval Sta.	47 39	122 37	8 10	Port Townsend	155	+0 39	+ 1 02	+4.4	+1.5	1.49
39	Tacoma	47 16	122 26	8 10	Port Townsend	155	+0 44	+ 1 12	+4.5	+1.5	1.57
40	Steilacoom	47 11	122 36	8 10	Port Townsend	155	+0 58	+ 1 31	+5.8	+1.8	1.76
41	Dofflemyer Point, Budd Inlet	47 08	122 54	8 12	Port Townsend	155	+1 05	+ 1 43	+7.9	+2.4	2.05
42	Olympia, Budd Inlet	47 04	122 54	8 12	Port Townsend	155	+1 09	+ 1 49	+8.1	+2.5	2.07
	Possession Sound and Port Susan.										
43	Muckilteo	47 57	122 18	8 09	Port Townsend	155	+0 36	+ 0 51	+2.7	+1.0	1.32
44	Tulalip	48 03	122 17	8 09	Port Townsend	155	+0 26	+ 1 08	+3.3	+1.2	1.40
45	Livingston Bay	48 14	122 27	8 10	Port Townsend	156	+0 51	+ 0 56	+5.6	+1.8	1.72
	Saratoga Passage.										
46	Holmes Harbor	48 03	122 33	8 10	Port Townsend	155	+0 29	+ 0 57	+4.9	+1.6	1.63
47	Coupeville	48 13	122 41	8 11	Port Townsend	155	+0 32	+ 1 03	+4.5	+1.5	1.57
	Skagit Bay.										
48	Utsalady	48 15	122 30	8 10	Port Townsend	155	+0 32	+ 1 08	+4.2	+1.5	1.51
49	La Conner	48 23	122 30	8 10	Port Townsend	155	+0 37	+ 1 06	+3.8	+1.3	1.48
50	Deception Pass	48 25	122 37	8 10	Port Townsend	156	+0 17	+ 0 32	+0.2	+0.2	1.00

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc.)	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	2 55	10 34	2 06b	10 58b	3.2	4.0	2.3	5.0	1.4	2.6	.....	3.0	2.5	2.8	21.5
2	3 08	10 55	2 18b	11 19b	2.9	3.6	2.1	4.6	1.3	2.5	.....	2.8	2.3	2.6	21.5
3	3 39	11 25	2 45b	11 51b	2.6	3.2	1.9	4.2	1.2	2.4	.....	2.7	2.1	2.4	21.5
4	4 40	0 00	3 39b	0 30a	2.0	2.5	1.4	3.4	1.1	2.1	.....	2.4	1.7	1.9	21.5
5	6 11	1 30	4 46b	2 11a	1.1	1.4	0.8	2.1	0.8	1.5	.....	1.8	1.1	1.2	21.5
6	6 42	2 01	5 04b	2 48a	0.8	1.0	0.6	1.7	0.7	1.3	.....	1.5	0.9	1.0	21.5
7	0 00	6 00	— 0 35b	6 17b	6.2	7.7	4.5	8.7	1.9	3.7	.....	4.2	4.4	4.8	22.0
8	0 45	6 35	0 13b	6 50b	7.5	9.3	5.4	10.3	2.1	4.0	.....	4.6	5.2	5.6	22.0
9	0 35	6 30	0 08b	6 45b	7.4	9.2	5.3	10.2	2.1	4.0	.....	4.5	5.1	5.5	22.0
10	0 45	6 40	0 13b	6 55b	7.4	9.2	5.3	10.2	2.1	4.0	.....	4.5	5.1	5.5	22.0
11	12 15	5 45	11 42a	6 01b	6.9	8.6	5.0	9.6	2.0	3.9	.....	4.4	4.8	5.2	22.0
12	0 26	6 28	— 0 04b	6 42b	8.3	10.3	6.0	11.2	2.2	4.2	.....	4.8	5.6	6.0	22.5
13	0 04	6 28	— 0 29b	6 44b	7.0	8.7	5.0	9.7	2.0	3.9	.....	4.4	4.9	5.3	22.5
14	12 00	5 55	11 28a	6 11b	7.3	9.1	5.3	10.0	2.0	4.0	.....	4.5	5.0	5.5	23.0
15	12 18	6 00	11 45a	6 16b	6.7	8.3	4.8	9.3	2.0	3.8	.....	4.3	4.7	5.2	23.0
16	12 07	6 02	11 35a	6 18b	7.1	8.8	5.1	9.8	2.0	3.9	.....	4.4	4.9	5.3	23.0
17	0 08	6 16	— 0 28b	6 34b	5.7	7.1	4.1	8.1	1.8	3.5	.....	4.0	4.1	4.4	23.5
18	0 00	6 18	— 0 36b	6 35b	5.8	7.2	4.2	8.2	1.8	3.5	.....	4.0	4.1	4.5	23.5
19	1 17	7 16	0 39b	7 34b	5.3	6.6	3.8	7.7	1.8	3.4	.....	3.9	3.8	4.2	23.0
20	2 10	8 23	3 41a	8 16b	4.4	5.3	3.4	8.3	1.0	7.5	.....	7.5	4.8	5.7	23.0
21	2 42	8 34	4 39a	8 27b	4.2	5.0	3.3	8.2	0.9	7.1	.....	7.1	4.6	5.3	23.0
22	3 06	9 02	4 55a	8 56b	4.8	5.8	3.7	9.1	1.0	7.6	.....	7.6	5.0	5.8	23.0
23	3 19	9 12	5 07a	9 06b	4.9	5.9	3.8	9.3	1.0	7.7	.....	7.7	5.1	5.9	23.0
24	3 40	9 28	5 35a	9 29b	4.7	5.6	3.7	9.0	1.0	7.5	.....	7.5	4.9	5.7	23.0
25	3 46	9 30	5 38a	9 34b	5.0	6.0	3.9	9.4	1.0	7.8	.....	7.8	5.2	6.0	23.0
26	3 47	9 32	5 39a	9 25b	5.2	6.2	4.0	9.5	0.6	8.1	9 26	8.1	7.4	6.2	23.0
27	3 56	9 47	5 37a	9 41b	5.6	6.7	4.4	10.3	1.1	8.2	.....	8.2	7.6	6.5	23.0
28	3 58	9 51	5 36a	9 45b	6.0	7.2	4.7	10.8	1.1	8.5	.....	8.5	7.7	6.8	23.0
29	4 00	9 56	5 35a	9 50b	6.3	7.6	4.9	11.3	1.2	8.7	.....	8.7	8.0	7.1	23.0
30	4 03	10 00	5 35a	9 55b	6.7	8.0	5.2	11.8	1.2	9.0	.....	9.0	8.3	7.4	23.0
31	4 34	10 33	5 58a	10 28b	8.0	9.6	6.2	13.6	1.3	9.8	.....	9.8	9.5	8.4	22.5
32	4 18	10 30	5 42a	10 25b	8.1	9.7	6.3	13.7	1.3	9.9	.....	9.9	9.6	8.5	22.5
33	4 07	10 02	5 40a	9 57b	6.6	7.9	5.2	11.7	1.2	8.9	.....	8.9	8.2	7.3	23.0
34	4 20	10 23	5 38a	10 18b	7.5	9.0	5.8	12.5	1.3	8.5	.....	8.5	8.4	7.0	23.0
35	4 21	10 30	5 33a	10 20b	7.6	9.1	5.9	12.6	1.4	8.6	.....	8.6	8.5	7.7	22.5
36	4 22	10 33	5 34a	10 24b	7.7	9.2	6.0	12.7	1.4	8.7	9 52	8.6	8.6	7.8	22.5
37	4 25	10 29	5 51a	10 24b	7.8	9.4	6.1	13.3	1.3	8.8	.....	8.8	9.0	8.3	22.5
38	4 27	10 35	5 49a	10 30b	7.8	9.4	6.1	13.3	1.3	8.0	.....	8.0	8.4	8.6	22.5
39	4 32	10 45	5 55a	10 40b	8.2	9.8	6.4	13.8	1.3	9.9	.....	9.9	9.4	8.6	22.5
40	4 46	11 04	6 05a	10 59b	9.2	11.0	7.2	15.2	1.4	10.5	.....	10.5	10.5	9.3	22.5
41	4 51	11 14	6 04a	11 10b	10.7	12.8	8.4	17.1	1.5	11.3	.....	11.3	11.8	10.5	22.5
42	4 55	11 20	6 08a	11 16b	10.8	13.0	8.4	17.3	1.5	11.4	.....	11.4	12.0	10.6	22.5
43	4 25	10 25	5 56a	10 20b	6.9	8.3	5.4	12.1	1.2	9.1	.....	9.1	8.5	7.6	23.0
44	4 15	10 42	5 44a	10 37b	7.3	8.8	5.7	12.6	1.2	9.3	.....	9.4	8.9	7.9	23.0
45	4 39	10 29	5 59a	10 24b	9.0	10.8	7.0	14.9	1.4	10.4	.....	10.4	10.4	9.1	23.0
46	4 17	10 30	5 39a	10 25b	8.5	10.2	6.6	14.3	1.3	10.1	.....	10.1	9.9	8.9	23.0
47	4 19	10 35	5 42a	10 30b	8.2	9.8	6.4	13.9	1.3	9.9	.....	9.9	9.7	8.6	23.0
48	4 20	10 36	5 46a	10 31b	7.9	9.5	6.2	13.5	1.3	9.7	.....	9.8	9.5	8.4	23.0
49	4 25	10 39	5 51a	10 34b	7.7	9.2	6.0	13.2	1.3	9.6	.....	9.6	9.2	8.3	23.0
50	4 05	10 05	5 50a	9 59b	5.2	6.2	4.1	9.7	1.0	7.9	.....	7.9	6.9	6.2	23.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	WASHINGTON—continued.										
	Rosario Strait, etc.	North.	West.				Time meridian, 120° W.		Two feet below Mean Lower Low Water.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Burrows Bay, Allan Island	48 29	122 42	8 11	Port Townsend	155	+0 16	+0 13	+0.2	+0.2	1.00
2	Anacortes, Fidalgo Island	48 31	122 36	8 10	Port Townsend	155	+0 14	+0 46	+1.5	+0.4	1.21
3	Thatcher Pass, Decatur Island	48 32	122 48	8 11	Port Townsend	155	+0 38	+0 28	+0.6	+0.4	1.03
4	Peavine Pass, Obstruction Island	48 36	122 48	8 11	Port Townsend	155	+0 41	+0 28	+0.8	+0.5	1.05
5	Strawberry Bay, Cypress Island	48 34	122 43	8 11	Port Townsend	155	+0 33	+0 28	+0.5	+0.4	1.02
6	Eagle Harbor, Cypress Island	48 35	122 42	8 11	Port Townsend	155	+0 43	+0 58	+0.8	+0.5	1.05
	Padilla Bay.										
7	Bayview	48 29	122 29	8 10	Port Townsend	155	+1 02	+1 17	+0.8	+0.4	1.07
8	Hat Island	48 32	122 33	8 10	Port Townsend	155	+0 42	+1 07	+0.6	+0.4	1.03
	Bellingham Bay.										
9	William Point, Samish Island	48 35	122 32	8 10	Port Townsend	155	+0 47	+0 57	+0.5	+0.4	1.02
10	Chuckanut Bay	48 40	122 30	8 10	Port Townsend	155	+0 57	+0 55	+0.2	+0.2	1.00
11	Fairhaven	48 43	122 31	8 10	Port Townsend	155	+0 59	+0 57	+0.2	+0.2	1.00
	Lummi Bay.										
12	Point Migley	48 45	122 43	8 11	Port Townsend	155	+1 03	+1 01	+0.2	+0.2	1.00
13	Sandy Point	48 47	122 42	8 11	Port Townsend	155	+1 06	+1 13	+0.5	+0.4	1.02
	Georgia Strait.										
14	Birch Bay	48 55	122 45	8 11	Port Townsend	155	+1 09	+1 26	+0.8	+0.4	1.07
15	Drayton Harbor, Semiamoo Bay	49 00	122 46	8 11	Port Townsend	155	+1 12	+1 38	+1.3	+0.6	1.13
	San Juan Channel.										
16	Cattle Point, San Juan Island	48 27	122 58	8 12	Port Townsend	155	−0 18	−0 09	0.0	+0.2	0.96
17	Green Point, Spieden Island	48 38	123 07	8 12	Port Townsend	155	−0 03	+0 17	+0.8	+0.5	1.05
	Haro Strait.										
18	Kanaka Bay, San Juan Island	48 29	123 04	8 12	Port Townsend	155	−0 16	−0 01	+0.2	+0.2	1.00
19	Roche Harbor, San Juan Island	48 37	123 08	8 13	Port Townsend	155	−0 10	+0 06	+0.6	+0.4	1.03
20	Turn Point, Stuart Island	48 41	123 14	8 13	Port Townsend	155	+0 06	+0 26	+1.0	+0.5	1.09
21	Alden Point, Patos Island	48 47	122 58	8 12	Port Townsend	155	+0 31	+0 52	+1.0	+0.5	1.09
	BRITISH COLUMBIA.								Mean Lower Low Water.		
22	*Esquimalt Harbor, Vancouver I.	48 26	123 27	8 14	Port Townsend	155	+1 35	−1 06	−2.8	−3.4	0.61
23	*Victoria Harbor, Vancouver Island.	48 25	123 23	8 14	Port Townsend	155	+1 18	−0 49	−3.0	−3.4	0.60
24	*Discovery Island Light	48 25	123 13	8 13	Port Townsend	155	+1 07	−0 38	−3.2	−3.4	0.58
25	Active Pass, Mayne Island	48 52	123 18	8 13	Port Townsend	155	+1 20	+1 45	−0.6	−1.4	1.13
26	Cowichin Harbor, Vancouver I	48 46	123 37	8 14	Port Townsend	155	+1 20	+1 46	−0.6	−1.4	1.13
27	Maple Bay, Vancouver Island	48 50	123 36	8 14	Port Townsend	155	+1 26	+1 53	−0.6	−1.4	1.13
28	Oyster Harbor, Vancouver Island	49 00	123 48	8 15	Port Townsend	155	+1 47	+2 17	0.0	−1.2	1.23
29	North Sand Head Light, Fraser R.	49 05	123 16	8 13	Port Townsend	155	+1 26	+1 53	−0.7	−1.5	1.15
30	Atkinson Point Lt., Burrard Inlet	49 20	123 16	8 13	Port Townsend	155	+1 35	+2 05	+0.2	−1.4	1.28
31	Vancouver, Burrard Inlet	49 17	123 11	8 13	Port Townsend	155	+1 43	+2 31	+0.3	−1.3	1.34
32	Port Graves, Gambier I., Howe Sd	49 29	123 24	8 14	Port Townsend	155	+1 54	+2 29	+1.4	−1.2	1.48
33	Watts Point, Howe Sound	49 41	123 13	8 13	Port Townsend	155	+2 05	+2 50	+2.2	−1.0	1.61
34	Nanaimo Harbor, Vancouver I	49 10	123 57	8 16	Port Townsend	155	+0 58	+1 38	+2.2	−1.0	1.61
35	Nanoose Harbor, Vancouver I	49 16	124 10	8 17	Port Townsend	155	+1 11	+1 51	+2.6	−1.0	1.67
36	Pender Harbor, Malaspina Strait	49 38	124 03	8 16	Port Townsend	155	+2 18	+1 48	+2.4	−1.0	1.65
37	Port Augusta, Vancouver Island	49 37	124 51	8 19	Port Townsend	155	+1 06	+1 36	+3.0	−1.0	1.74
38	Baker Passage, Hernando Island	50 01	124 57	8 20	Port Townsend	155	+2 02	+2 37	+3.6	−0.8	1.84
39	Surge Narrows, Read Island	50 16	125 07	8 20	Port Townsend	155	+2 05	+2 37	+4.2	−0.8	1.93
40	Rendezvous Islands	50 17	125 05	8 20	Port Townsend	155	+3 02	+2 02	+4.2	−0.8	1.93
41	Stuart Island, Bute Inlet	50 23	125 09	8 21	Port Townsend	155	+2 02	+2 51	+4.2	−0.8	1.93
42	Waddington Harbor, Bute Inlet	50 05	124 52	8 19	Port Townsend	155	+3 16	+4 11	+4.2	−0.8	1.93
43	Gowlland Har., Discovery Passage	50 05	125 16	8 21	Port Townsend	155	+1 08	+0 53	−0.2	−1.1	1.17
44	†SEYMOUR NARROWS, Discovery P.	50 08	125 23	8 22	Port Townsend	155	−0 57	−0 30	+0.6	−1.0	1.30
45	Cameleon Harbor, Nodales Chan	50 20	125 20	8 21	Sitka	159	+3 03	+2 21	+2.4	−1.4	1.48
46	Knox Bay, Thurlow Island	50 24	125 39	8 23	Sitka	159	+3 55	+4 03	+3.5	−1.3	1.62
47	Beaver Creek, Loughboro Inlet	50 31	125 38	8 23	Sitka	159	+3 45	+3 51	+2.0	−1.4	1.42
48	Forward Harbor	50 29	125 47	8 23	Sitka	159	+3 15	+3 23	+2.5	−1.3	1.49
49	Topaze Harbor	50 32	125 48	8 23	Sitka	159	+3 15	+3 23	+2.5	−1.3	1.49
50	Port Neville	50 31	126 04	8 24	Sitka	159	−2 46	+2 51	+3.5	−1.3	1.62
51	Port Harvey, Call Creek	50 34	126 17	8 25	Sitka	159	+2 12	+2 15	+2.0	−1.4	1.42

*As the tide is chiefly diurnal at these stations, the differences should be applied to only the higher high and lower low waters at Port Townsend.

†The time of slack water at Seymour Narrows is given in Table 9 of this volume.

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	4 03	9 45	5 48a	9 39b	5.2	6.2	4.1	9.7	1.0	7.9	.....	7.9	6.9	6.2	23.0
2	4 02	10 19	6 00a	9 54b	6.3	7.5	5.0	11.3	1.2	8.7	.....	8.8	7.7	7.1	23.0
3	4 25	10 00	6 09a	9 54b	5.4	6.5	4.2	10.0	1.1	8.1	.....	8.1	7.2	6.3	23.0
4	4 28	10 00	6 11a	9 54b	5.5	6.6	4.3	10.1	1.1	8.1	.....	8.2	7.3	6.4	23.0
5	4 20	10 00	6 04a	9 54b	5.3	6.4	4.1	9.9	1.1	8.0	.....	8.0	7.1	6.3	23.0
6	4 30	10 30	6 13a	10 24b	5.5	6.6	4.3	10.1	1.1	8.1	.....	8.2	7.3	6.4	23.0
7	4 50	10 50	6 31a	10 44b	5.6	6.7	4.4	10.3	1.1	8.2	.....	8.2	7.3	6.4	23.5
8	4 30	10 40	6 14a	10 34b	5.4	6.5	4.2	10.0	1.1	8.1	.....	8.1	7.2	6.3	23.5
9	4 35	10 30	6 19a	10 24b	5.3	6.4	4.1	9.9	1.1	8.0	.....	8.0	7.1	6.3	23.5
10	4 45	10 28	6 30a	10 22b	5.2	6.2	4.1	9.7	1.0	7.9	.....	7.9	6.9	6.2	23.5
11	4 47	10 30	6 32a	10 24b	5.2	6.2	4.1	9.7	1.0	7.9	.....	7.9	6.9	6.2	23.5
12	4 50	10 33	6 35a	10 27b	5.2	6.2	4.1	9.7	1.0	7.9	.....	7.9	6.9	6.2	23.5
13	4 53	10 45	6 37a	10 39b	5.3	6.4	4.1	9.9	1.1	8.0	.....	8.0	7.1	6.3	23.5
14	4 56	10 58	6 37b	10 52b	5.6	6.7	4.4	10.3	1.1	8.2	.....	8.2	7.3	6.5	23.5
15	4 59	11 10	6 37b	11 04b	5.9	7.1	4.6	10.7	1.1	8.4	.....	8.4	7.6	6.8	23.5
16	3 28	9 22	5 16b	9 15b	5.0	6.0	3.9	9.4	1.0	7.8	.....	7.8	6.8	6.0	23.5
17	3 46	9 48	5 26b	9 42b	5.5	6.6	4.3	10.1	1.1	8.1	.....	8.2	7.3	6.4	23.5
18	3 30	9 30	5 15b	9 24b	5.2	6.2	4.1	9.7	1.0	7.9	.....	7.9	6.9	6.2	23.5
19	3 35	9 36	5 19b	9 30b	5.4	6.5	4.2	10.0	1.1	8.1	.....	8.1	7.2	6.3	23.5
20	3 51	9 56	5 32b	9 50b	5.7	6.8	4.5	10.4	1.1	8.3	.....	8.3	7.4	6.6	23.5
21	4 17	10 23	5 58b	10 17b	5.7	6.8	4.5	10.4	1.1	8.3	.....	8.3	7.4	6.6	23.5
22	[2 00]	[8 14]	7 11b	8 16b	[2.7]	[3.4]	[2.0]	5.8	.....	.....	.....	6.8	3.6	4.6	23.5
23	[2 17]	[8 31]	6 54b	8 33b	[2.6]	[3.2]	[1.9]	5.7	.....	.....	9 18	6.7	3.5	4.5	23.0
24	[2 27]	[8 41]	6 44b	8 49b	[2.4]	[3.0]	[1.8]	5.5	.....	.....	.....	6.6	3.4	4.4	23.0
25	5 05	11 15	6 43b	11 09b	5.9	7.0	4.6	10.7	1.1	8.0	.....	8.0	5.7	6.7	23.5
26	5 04	11 15	6 42b	11 09b	5.9	7.0	4.6	10.7	1.1	8.0	.....	8.0	5.7	6.7	23.5
27	5 10	11 22	6 48b	11 16b	5.9	7.0	4.6	10.7	1.1	8.0	.....	8.0	5.7	6.7	23.5
28	5 30	11 45	7 05b	11 39b	6.4	7.6	5.0	11.4	1.2	8.4	.....	8.4	6.1	7.1	23.5
29	5 11	11 23	6 45b	11 15b	6.9	7.0	4.4	10.4	1.2	7.5	.....	7.6	5.6	6.9	24.0
30	5 20	11 35	6 49b	11 28b	6.7	7.8	4.9	11.3	1.2	7.9	.....	8.0	6.1	7.2	24.0
31	5 28	12 01	6 56b	11 58b	6.8	8.2	5.0	11.9	1.1	8.2	12 00	8.3	6.2	7.3	24.0
32	5 38	11 58	7 01b	11 51b	7.7	9.0	5.6	12.6	1.3	8.5	.....	8.6	6.8	8.0	24.0
33	5 50	12 20	7 09b	12 14b	8.4	9.8	6.1	13.5	1.3	8.9	.....	9.0	7.3	8.6	24.0
34	4 40	11 05	5 59b	10 59b	8.4	9.8	6.1	13.5	1.3	8.9	.....	9.0	7.3	8.6	24.0
35	4 52	11 18	6 10b	11 12b	8.7	10.2	6.4	13.9	1.4	9.0	.....	9.1	7.5	8.8	24.0
36	5 00	11 15	6 18b	11 00b	8.6	10.1	6.3	13.8	1.4	9.0	.....	9.1	7.4	8.7	24.0
37	4 45	11 00	6 00b	10 54b	9.1	10.6	6.6	14.4	1.4	9.2	.....	9.3	7.7	9.0	24.5
38	5 40	12 00	6 54b	11 52b	9.6	11.2	7.0	15.0	1.4	9.5	.....	9.6	8.1	9.5	24.5
39	5 45	12 00	7 00b	11 54b	10.1	11.8	7.4	15.7	1.5	9.7	.....	9.8	8.4	9.8	24.5
40	6 50	1 00	8 10b	1 03a	10.1	11.8	7.4	15.7	1.5	9.7	.....	9.8	8.4	9.8	25.0
41	5 42	12 13	6 54b	12 07b	10.1	11.8	7.4	15.7	1.5	9.7	.....	9.8	8.4	9.8	25.0
42	6 55	1 10	8 07b	1 04a	10.1	11.8	7.4	15.7	1.5	9.7	.....	9.8	8.4	9.8	24.5
43	4 45	10 15	6 22b	11 09b	6.1	7.2	4.8	10.9	1.1	8.5	.....	8.6	6.0	6.9	24.5
44	2 39	8 05	1 14b	8 26b	6.8	8.0	5.5	12.3	2.5	8.9	9 43	9.3	6.5	7.4	24.5
45	2 50	8 20	6 40b	8 32b	11.4	15.7	8.6	15.8	1.8	5.3	.....	5.9	7.6	7.5	25.0
46	3 40	10 00	3 11b	10 11b	12.5	15.7	7.7	15.9	1.9	5.5	.....	6.0	8.2	8.0	25.0
47	3 30	9 48	3 00b	10 00b	11.0	14.1	7.4	14.4	1.9	5.4	.....	5.9	7.4	7.7	25.0
48	3 00	9 20	2 31b	9 31b	11.5	14.7	7.7	14.9	1.9	5.5	.....	6.0	7.7	8.0	25.0
49	3 00	9 20	2 31b	9 31b	11.5	14.7	7.7	14.9	1.9	5.5	.....	6.0	7.7	8.0	25.0
50	2 30	8 47	2 02b	8 58b	12.5	16.0	8.3	15.9	2.0	5.7	.....	6.3	8.2	8.6	25.0
51	1 55	8 10	1 25b	8 22b	11.0	14.1	7.4	14.4	1.9	5.4	.....	5.9	7.4	7.7	25.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (West Coast)—Continued.										
	British Columbia—continued.	North.	West.				Time meridian, 120° W.		Mean Lower Low Water.		
		° ′	° ′	h.m.			h. m.	h. m.	feet.	feet.	
1	Sergeaunt Passage	50 42	126 11	8 25	Sitka	159	+2 02	+2 05	+1.6	−1.4	1.37
2	Farewell Harbor, Blackfish Sd	50 36	126 42	8 27	Sitka	159	+1 34	+1 36	+2.9	−1.3	1.54
3	Dusky Cove, Bonwick Island	50 42	126 40	8 27	Sitka	159	+1 27	+1 29	+2.5	−1.3	1.49
4	Sunday Harbor, Crib Island	50 44	126 42	8 27	Sitka	159	+1 19	+1 20	+2.5	−1.3	1.49
5	Cullen Harbor, Fife Sound	50 46	126 45	8 27	Sitka	159	+1 19	+1 20	+2.5	−1.3	1.49
6	Deep Harbor, Fife Sound	50 48	126 35	8 26	Sitka	159	+1 38	+1 39	+2.0	−1.4	1.42
7	Tracey Harbor, Broughton Island	50 51	126 53	8 28	Sitka	159	+1 20	+1 21	+1.6	−1.4	1.37
8	Cypress Harbor, Broughton Island	50 50	126 41	8 27	Sitka	159	+1 49	+1 50	+1.2	−1.4	1.33
9	Beaver Cove, Vancouver Island	50 33	126 52	8 27	Sitka	159	+1 29	+1 30	+0.8	−1.4	1.29
10	Alert Bay, Cormorant Island	50 35	126 57	8 28	Sitka	159	+1 15	+1 16	+0.8	−1.4	1.29
11	Nimpkish River, Vancouver Island	50 34	126 50	8 28	Sitka	159	+1 20	+1 21	+0.2	−1.6	1.22
12	Beaver Harbor, Vancouver Island	50 43	127 25	8 30	Sitka	159	+0 52	+0 52	−0.2	−1.6	1.16
13	Blunden Harbor	50 54	127 19	8 29	Sitka	159	+0 51	+0 51	−0.2	−1.6	1.16
14	Port Alexander, Galiano Island	50 51	127 40	8 31	Sitka	159	+0 55	+0 55	−0.2	−1.6	1.18
15	Bull Harbor, Hope Island	50 55	127 56	8 32	Sitka	159	+0 34	+0 34	−1.0	−1.6	1.09
	Vancouver Island, southwest coast.										
16	Race Rocks Light, Fuca Strait	48 18	123 32	8 14	Port Townsend	155	−1 59	−1 51	−1.9	−1.5	0.92
17	Sooke Inlet, Fuca Strait	48 21	123 43	8 15	Port Townsend	155	−2 16	−1 59	−1.6	−1.4	0.96
18	Jordan River, Fuca Strait	48 25	124 03	8 16	Port Townsend	155	−2 32	−2 12	−1.1	−1.3	1.03
19	Port San Juan, Fuca Strait	48 33	124 26	8 18	Astoria	151	+0 33	+0 16	−0.4	0.0	0.95
20	Carmanah Point Light	48 37	124 46	8 19	Astoria	151	+0 09	−0 10	−0.4	0.0	0.95
21	Cape Beale Light, Barclay Sound	48 48	125 14	8 21	Astoria	151	−0 14	−0 21	+1.8	+0.2	1.27
22	Stamp Harbor	49 16	124 51	8 19	Astoria	151	+0 34	+0 42	+3.9	+0.3	1.59
23	Clayoquot Sound	49 14	126 00	8 24	Astoria	151	−0 16	−0 25	+1.8	+0.2	1.29
24	Hesquiat Harbor	49 25	126 28	8 26	Astoria	151	−0 24	−0 35	+2.0	+0.2	1.32
25	Nootka Sound	49 36	126 38	8 27	Astoria	151	−0 23	−0 35	+1.6	+0.2	1.25
26	Esperanza Inlet	49 50	126 58	8 28	Astoria	151	−0 32	−0 44	+1.6	+0.2	1.24
27	Kyuquot Sound	50 00	127 12	8 29	Astoria	151	−0 36	−0 50	+1.2	+0.2	1.19
28	Ou-Ou-Kinsh Inlet	50 08	127 34	8 30	Astoria	151	−0 38	−0 53	+1.2	+0.2	1.19
29	Klaskino Inlet	50 18	127 52	8 31	Astoria	151	−0 48	−1 03	+0.6	0.0	1.10
30	Quatsino Sound Entrance	50 28	127 56	8 32	Astoria	151	−0 47	−1 02	+0.6	0.0	1.10
	Smith Inlet.						Time meridian, 135° W.				
31	Takush Harbor	51 17	127 39	8 31	Sitka	159	−0 12	−0 12	0.0	−1.6	1.19
	Fitzhugh Sound.										
32	Schooner Retreat	51 28	127 45	8 31	Sitka	159	−0 07	−0 07	−0.2	−1.6	1.16
33	Safety Cove	51 32	127 56	8 32	Sitka	159	−0 01	−0 01	+0.3	−1.5	1.23
34	Goldstream Harbor	51 43	128 01	8 32	Sitka	159	−0 11	−0 11	+0.8	−1.4	1.29
35	Namu Harbor	51 52	127 52	8 31	Sitka	159	+0 02	+0 02	+0.5	−1.5	1.25
36	Welcome Harbor, Hakai Strait	51 41	128 08	8 33	Sitka	159	−0 15	−0 15	−0.2	−1.6	1.16
	Fisher Channel.										
37	Port John	52 00	127 53	8 32	Sitka	159	+0 34	+0 38	+1.4	−1.4	1.36
	Campbell Island.										
38	McLaughlin Bay	52 09	128 10	8 33	Sitka	159	+0 15	+0 19	0.0	−1.6	1.19
39	Kynumpt Harbor	52 12	128 13	8 33	Sitka	159	+0 10	+0 12	+0.5	−1.5	1.25
	Milbank Sound.										
40	Port Blakeney	52 19	128 23	8 34	Sitka	159	−0 14	−0 15	−0.2	−1.6	1.18
	Finlayson Channel.										
41	Nowish Cove	52 31	128 27	8 34	Sitka	159	+0 06	+0 05	+0.1	−1.4	1.20
42	Klemtoo Passage	52 34	128 32	8 34	Sitka	159	+0 09	+0 08	+0.1	−1.4	1.20
	Queen Charlotte Islands.										
43	Port Kuper	52 57	132 16	8 49	Sitka	159	−0 18	−0 18	−0.2	−1.6	1.16
44	Skidegate Inlet	53 13	131 59	8 48	Sitka	159	−0 11	−0 11	+0.8	−1.4	1.29
	Principe Channel.										
45	Port Stephens	53 21	129 41	8 39	Sitka	159	−0 07	−0 08	+2.0	−1.4	1.42
46	Port Canaveral	53 34	130 09	8 41	Sitka	159	−0 02	−0 03	+2.0	−1.4	1.42
	Wright Sound.										
47	Holmes Bay	53 16	129 05	8 36	Sitka	159	−0 12	−0 13	+0.8	−1.4	1.29
48	Coghlan Anchorage	53 23	129 17	8 37	Sitka	159	−0 11	−0 12	+2.0	−1.4	1.42

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	1 45	8 00	1 14b	8 12b	10.6	13.6	7.1	13.9	1.8	5.3	.....	5.8	7.2	7.5	25.0
2	1 15	7 29	0 46b	7 40b	11.9	15.2	8.0	15.4	2.0	5.6	.....	6.1	7.9	8.2	25.0
3	1 08	7 22	0 39b	7 33b	11.5	14.7	7.7	14.9	1.9	5.5	.....	6.0	7.7	8.0	25.0
4	1 00	7 13	0 31b	7 24b	11.5	14.7	7.7	14.9	1.9	5.5	.....	6.0	7.7	8.0	25.0
5	1 00	7 13	0 31b	7 24b	11.5	14.7	7.7	14.9	1.9	5.5	.....	6.0	7.7	8.0	25.0
6	1 20	7 33	0 50b	7 45b	11.0	14.1	7.4	14.3	1.9	5.4	.....	5.9	7.4	7.8	25.0
7	1 00	7 13	0 29b	7 25b	10.6	13.6	7.1	13.8	1.9	5.3	.....	5.8	7.2	7.6	25.0
8	1 30	7 43	0 59b	7 55b	10.3	13.2	6.9	13.5	1.8	5.2	.....	5.7	7.0	7.4	25.0
9	1 10	7 23	0 39b	7 35b	10.0	12.8	6.7	13.1	1.8	5.1	.....	5.6	6.8	7.2	25.0
10	0 55	7 08	0 24b	7 20b	10.0	12.8	6.7	13.1	1.8	5.1	.....	5.6	6.8	7.2	25.0
11	1 00	7 13	0 27b	7 26b	9.4	12.1	6.3	12.5	1.8	5.0	.....	5.5	6.4	6.9	25.0
12	0 30	6 42	− 0 03b	6 45b	9.0	11.5	6.0	12.0	1.7	4.9	.....	5.3	6.2	6.6	25.0
13	0 30	6 42	− 0 03b	6 45b	9.0	11.5	6.0	12.0	1.7	4.9	.....	5.3	6.2	6.6	25.0
14	0 32	6 44	− 0 01b	6 47b	9.1	11.6	6.1	12.1	1.7	4.9	.....	5.4	6.2	6.7	25.0
15	0 10	6 22	− 0 25b	6 36b	8.4	10.7	5.6	11.3	1.7	4.7	.....	5.2	5.8	6.2	25.0
16	1 45	7 38	3 34b	7 32b	4.8	5.8	3.7	9.1	1.0	7.6	.....	7.6	5.0	5.8	23.5
17	1 27	7 29	3 15b	7 23b	5.0	6.0	3.9	9.4	1.0	7.8	.....	7.8	5.2	6.0	23.5
18	1 10	7 15	2 54b	7 09b	5.4	6.5	4.2	10.0	1.1	8.1	.....	8.1	5.5	6.3	23.5
19	0 45	6 55	0 10b	7 12b	6.0	7.4	4.3	8.5	1.9	3.6	.....	4.1	4.3	4.6	23.5
20	0 20	6 28	− 0 15b	6 45b	6.0	7.4	4.3	8.5	1.9	3.6	.....	4.1	4.3	4.6	23.5
21	12 20	6 15	11 49a	6 30b	8.0	9.9	5.7	10.9	2.2	4.2	.....	4.7	5.5	5.9	23.5
22	0 45	7 20	0 17b	7 33b	10.0	12.4	7.1	13.2	2.4	4.6	.....	5.3	6.6	7.1	24.0
23	12 15	6 08	11 44a	6 23b	8.1	10.0	5.8	11.0	2.2	4.2	.....	4.8	5.5	5.9	24.0
24	12 05	5 56	11 35a	6 10b	8.3	10.3	5.9	11.2	2.2	4.2	.....	4.8	5.6	6.1	24.0
25	12 05	5 55	11 34a	6 10b	7.9	9.8	5.6	10.7	2.1	4.1	.....	4.7	5.4	5.9	24.5
26	11 55	5 45	11 24a	6 00b	7.8	9.7	5.5	10.6	2.1	4.1	.....	4.7	5.4	5.7	24.5
27	11 50	5 38	11 18a	5 53b	7.5	9.3	5.3	10.2	2.1	4.0	.....	4.6	5.2	5.6	24.5
28	11 47	5 34	11 15a	5 49b	7.5	9.3	5.3	10.2	2.1	4.0	.....	4.6	5.2	5.6	24.5
29	11 35	5 22	11 02a	5 38b	6.9	8.6	4.9	9.6	2.0	3.9	.....	4.4	4.8	5.2	25.0
30	11 35	5 22	11 02a	5 38b	6.9	8.6	4.9	9.6	2.0	3.9	.....	4.4	4.8	5.2	25.0
31	0 25	6 37	− 0 08b	6 50b	9.2	11.8	6.2	12.2	1.7	4.9	.....	5.4	6.3	6.7	25.5
32	0 30	6 42	− 0 03b	6 55b	9.0	11.5	6.0	12.0	1.7	4.9	.....	5.3	6.2	6.6	26.0
33	0 35	6 47	0 03b	7 00b	9.5	12.2	6.4	12.6	1.8	5.0	.....	5.5	6.5	6.9	26.0
34	0 25	6 37	− 0 06b	6 49b	10.0	12.8	6.7	13.1	1.8	5.1	.....	5.6	6.8	7.2	26.0
35	0 39	6 51	0 07b	7 04b	9.7	12.4	6.5	12.8	1.8	5.1	.....	5.5	6.6	7.0	26.0
36	0 20	6 32	− 0 13b	6 45b	9.0	11.5	6.0	12.0	1.7	4.9	.....	5.3	6.2	6.6	26.0
37	1 10	7 26	0 39b	7 38b	10.5	13.4	7.0	13.7	1.9	5.3	.....	5.8	7.1	7.5	26.0
38	0 50	7 06	0 17b	7 19b	9.2	11.8	6.2	12.2	1.7	4.9	.....	5.4	6.3	6.7	26.0
39	0 45	6 59	0 13b	7 12b	9.7	12.4	6.5	12.8	1.8	5.1	.....	5.5	6.6	7.0	26.0
40	0 20	6 31	− 0 13b	6 44b	9.1	11.6	6.1	12.1	1.7	4.9	.....	5.4	6.2	6.7	26.5
41	0 40	6 52	0 08b	7 05b	9.3	11.9	6.2	12.3	1.7	5.0	.....	5.4	6.4	6.8	26.5
42	0 43	6 55	0 11b	7 08b	9.3	11.9	6.2	12.3	1.7	5.0	.....	5.4	6.4	6.8	26.5
43	0 00	6 12	− 0 33b	6 25b	9.0	11.5	6.1	12.0	1.7	4.9	.....	5.3	6.2	6.6	26.5
44	0 07	6 19	− 0 24b	6 31b	10.0	12.8	6.7	13.1	1.8	5.1	.....	5.6	6.8	7.2	27.0
45	0 22	6 33	− 0 08b	6 45b	11.0	14.1	7.4	14.3	1.9	5.4	.....	5.9	7.4	7.8	27.0
46	0 25	6 36	− 0 05b	6 48b	11.0	14.1	7.4	14.3	1.9	5.4	.....	5.9	7.4	7.8	27.0
47	0 20	6 31	− 0 11b	6 43b	10.0	12.8	6.7	13.1	1.8	5.1	.....	5.6	6.8	7.2	27.0
48	0 20	6 30	− 0 10b	6 42b	11.0	14.1	7.4	14.3	1.9	5.4	.....	5.9	7.4	7.8	27.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	BRITISH COLUMBIA—continued.										
	Greenville Channel.	*North.*	*West.*				*Time meridian, 135° W.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Lowe Inlet	53 33	129 36	8 38	Sitka	159	0 00	0 00	+3.0	−1.2	1.55
2	Klewnugget Inlet	53 39	129 45	8 39	Sitka	159	+0 11	+0 12	+3.0	−1.2	1.55
	Ogden Channel.										
3	Alpha Bay	53 52	130 18	8 41	Sitka	159	−0 07	−0 09	+4.6	−1.2	1.75
	Chatham Sound.										
4	Refuge Bay, Porcher Island	54 04	130 22	8 41	Sitka	159	−0 12	−0 14	+2.9	−1.3	1.54
5	Qlawdzeet Anchorage	54 13	130 46	8 43	Sitka	159	−0 15	−0 17	+2.4	−1.4	1.49
6	Metlakahtla Bay	54 20	130 28	8 42	Sitka	159	−0 08	−0 10	+4.8	−1.2	1.77
7	Port Simpson	54 34	130 27	8 42	Sitka	159	−0 12	−0 13	+4.6	−1.0	1.73
	BRITISH COLUMBIA AND ALASKA.										
	Portland Canal, etc.										
8	Wales Point, Alaska	54 42	130 28	8 42	Sitka	159	−0 14	−0 16	+3.8	−1.2	1.66
9	Winter Har., Pearse Canal, Alaska	54 49	130 27	8 42	Sitka	159	−0 08	−0 16	+4.2	−1.2	1.68
10	Somerville Bay, B. C	54 47	130 13	8 41	Sitka	159	−0 10	−0 12	+4.4	−1.2	1.71
11	Nass Bay, B. C	54 59	129 59	8 40	Sitka	159	+0 13	+0 10	+9.4	−0.8	2.32
12	Observatory Inlet, B. C	55 06	129 58	8 40	Sitka	159	+0 16	+0 12	+9.4	−0.8	2.32
13	Halibut Bay, Alaska	55 14	130 06	8 40	Sitka	159	+0 18	+0 14	+6.6	−1.0	1.98
14	Fords Cove, B. C	55 37	130 06	8 40	Sitka	159	+0 21	+0 16	+5.2	−1.2	1.81
	ALASKA.										
	Dixon Entrance.										
15	Haystack Island	54 43	130 37	8 42	Sitka	159	−0 15	−0 17	+4.0	−1.2	1.67
16	Port Tongass, Tongass Island	54 46	130 44	8 43	Sitka	159	−0 17	−0 22	+4.2	−1.2	1.70
17	Nakat Harbor	54 48	130 42	8 43	Sitka	159	−0 13	−0 22	+4.2	−1.2	1.68
18	Cape Fox	54 46	130 51	8 43	Sitka	159	−0 18	−0 17	+4.0	−1.2	1.67
19	Cape Chacon, Prince of Wales Id	54 42	132 01	8 48	Sitka	159	−0 15	−0 12	+2.0	−1.4	1.44
20	How-kau, Kaigahnee Strait	54 49	132 49	8 51	Sitka	159	+0 09	+0 16	+3.0	−1.2	1.55
21	Cape Muzon, Dall Island	54 40	132 41	8 51	Sitka	159	−0 14	−0 13	+1.8	−1.4	1.40
	Revillagigedo Channel.										
22	Morse Cove, Duke Island	54 55	131 15	8 45	Sitka	159	+0 04	+0 01	+4.2	−1.2	1.68
23	Vixen Bay, Boca de Quadra	55 03	130 47	8 43	Sitka	159	+0 10	+0 04	+3.2	−1.2	1.58
24	Custom House Cove, Mary Island	55 06	131 13	8 45	Sitka	159	−0 01	−0 13	+4.4	−1.2	1.71
25	Hassler Harbor, Annette Island	55 13	131 26	8 46	Sitka	159	+0 04	−0 06	+4.6	−1.2	1.74
26	Gnat Harbor, Carroll Inlet	55 23	131 20	8 45	Sitka	159	+0 12	−0 12	+3.1	−1.3	1.57
27	Ward Cove, Tongass Narrows	55 24	131 44	8 47	Sitka	159	+0 08	+0 05	+6.8	−1.0	2.02
	Behm Canal.										
28	Shoalwater Pass	55 26	130 54	8 44	Sitka	159	+0 01	−0 09	+3.1	−1.3	1.57
29	Burroughs Bay	56 02	131 06	8 44	Sitka	159	+0 04	−0 03	+4.8	−1.2	1.76
30	Bell Arm, Bell Island	55 58	131 31	8 46	Sitka	159	+0 14	+0 06	+6.8	−1.0	2.02
31	Convenient Cove, Hassler Island	55 52	131 41	8 47	Sitka	159	+0 12	+0 06	+2.7	−1.3	1.52
32	Loring, Naha Bay	55 36	131 38	8 47	Sitka	159	+0 10	+0 04	+5.0	−1.2	1.79
	Clarence Strait.										
33	Cape Northumberland, Duke Id	54 51	131 22	8 46	Sitka	159	−0 15	−0 14	+2.7	−1.3	1.52
34	Tamgas Harbor, Annette Island	55 04	131 33	8 46	Sitka	159	−0 13	−0 16	+4.4	−1.2	1.71
35	Niblack Anchorage, Moira Sound	55 04	132 07	8 48	Sitka	159	−0 10	−0 13	+4.6	−1.2	1.75
36	Metlakahtla, Port Chester	55 08	131 34	8 46	Sitka	159	−0 08	−0 11	+4.6	−1.2	1.74
37	Chasima Anch., Cholmondeley Sd	55 16	132 03	8 48	Sitka	159	−0 02	−0 05	+5.0	−1.2	1.79
38	Kasaan Bay Entrance	55 24	132 10	8 49	Sitka	159	+0 17	+0 15	+5.6	−1.0	1.87
39	Kasaan Village, Skowl Arm	55 23	132 22	8 49	Sitka	159	+0 12	+0 11	+4.2	−1.2	1.68
40	Karta Bay, Kasaan Bay	55 34	132 35	8 50	Sitka	159	+0 41	+0 36	+3.4	−1.2	1.61
41	Tolstoi Bay, Prince of Wales Island	55 39	132 25	8 50	Sitka	159	+0 11	+0 09	+4.4	−1.2	1.72
42	Union Bay, Earnest Sound	55 45	132 12	8 49	Sitka	159	+0 12	+0 11	+3.8	−1.2	1.66
43	Dewey Anchorage, Etolin Island	55 55	132 22	8 49	Sitka	159	+0 13	+0 12	+4.8	−1.2	1.77
44	Ratz Harbor, Prince of Wales Island	55 53	132 36	8 50	Sitka	159	+0 13	+0 12	+4.4	−1.2	1.71
45	Steamer Bay, Etolin Island	56 09	132 41	8 51	Sitka	159	+0 09	+0 08	+4.2	−1.2	1.68
	Sumner Strait.										
46	Port McArthur, Kuiu Island	55 04	134 07	8 56	Sitka	159	−0 04	−0 03	−1.0	−1.6	1.09
47	Shakan, Prince of Wales Island	55 08	133 27	8 54	Sitka	159	+0 01	0 00	+0.2	−1.6	1.22
48	Port Beauclerc, Kuiu Island	55 18	133 54	8 56	Sitka	159	0 00	−0 01	+1.8	−1.3	1.41
49	Port Protection, Prince of Wales Id	55 19	133 36	8 54	Sitka	159	0 00	−0 02	+1.2	−1.4	1.35
50	Red Bay, Prince of Wales Island	55 19	133 18	8 53	Sitka	159	+0 03	0 00	+3.2	−1.2	1.58

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	0 30	6 42	0 01*b*	6 53*b*	12.0	15.4	8.0	15.4	2.0	5.6	.....	6.2	8.0	8.4	27.5
2	0 40	6 53	0 11*b*	7 04*b*	12.0	15.4	8.0	15.4	2.0	5.6	.....	6.2	8.0	8.4	27.5
3	0 20	6 30	−0 07*b*	6 41*b*	13.5	17.3	9.1	17.2	2.1	6.0	.....	6.5	8.8	9.3	27.5
4	0 15	6 25	−0 14*b*	6 36*b*	11.9	15.3	8.0	15.3	2.0	5.6	.....	6.1	7.9	8.4	27.5
5	0 10	6 20	−0 19*b*	6 31*b*	11.5	14.7	7.7	14.8	1.9	5.5	.....	6.0	7.6	8.1	27.5
6	0 18	6 28	−0 09*b*	6 39*b*	13.7	17.5	9.2	17.4	2.1	6.0	.....	6.6	8.9	9.4	28.0
7	0 14	6 25	−0 13*b*	6 36*b*	13.4	17.2	9.0	17.0	2.1	5.9	.....	6.5	8.8	9.2	29.0
8	0 11	6 21	−0 17*b*	6 32*b*	12.8	16.4	8.6	16.3	2.0	5.8	.....	6.4	8.4	8.9	28.0
9	0 17	6 21	−0 10*b*	6 32*b*	13.0	16.6	8.7	16.6	2.1	5.9	.....	6.4	8.6	9.0	28.0
10	0 16	6 26	−0 11*b*	6 37*b*	13.2	16.9	8.8	16.8	2.1	5.9	.....	6.5	8.7	9.1	28.5
11	0 40	6 49	0 16*b*	6 58*b*	17.9	22.9	12.0	22.1	2.4	6.9	.....	7.5	11.4	12.0	28.5
12	0 43	6 51	0 19*b*	7 00*b*	17.9	22.9	12.0	22.1	2.4	6.9	.....	7.5	11.4	12.0	28.5
13	0 45	6 53	0 19*b*	7 03*b*	15.3	19.6	10.3	19.2	2.2	6.4	.....	7.0	9.9	10.4	28.5
14	0 48	6 55	0 21*b*	7 06*b*	14.0	17.9	9.4	17.7	2.1	6.1	.....	6.7	9.1	9.6	28.5
15	0 10	6 20	−0 18*b*	6 31*b*	12.9	16.5	8.6	16.5	2.0	5.9	.....	6.4	8.5	8.9	28.5
16	0 08	6 15	−0 19*b*	6 26*b*	13.1	16.8	8.8	16.7	2.1	5.9	.....	6.4	8.6	9.1	28.0
17	0 12	6 15	−0 15*b*	6 26*b*	13.0	16.6	8.7	16.6	2.1	5.9	.....	6.4	8.6	9.0	28.0
18	0 07	6 20	−0 21*b*	6 31*b*	12.9	16.5	8.6	16.5	2.0	5.9	.....	6.4	8.5	8.9	28.0
19	0 04	6 19	−0 26*b*	6 31*b*	11.1	14.2	7.4	14.4	1.9	5.4	.....	5.9	7.4	7.9	28.0
20	0 25	6 44	−0 04*b*	6 55*b*	12.0	15.4	8.0	15.4	2.0	5.6	.....	6.2	8.0	8.4	28.0
21	0 02	6 15	−0 29*b*	6 27*b*	10.8	13.8	7.2	14.1	1.9	5.4	.....	5.9	7.3	7.7	28.0
22	0 27	6 36	0 00*b*	6 47*b*	13.0	16.6	8.7	16.6	2.1	5.9	.....	6.4	8.6	9.0	28.5
23	0 35	6 41	0 06*b*	6 52*b*	12.2	15.6	8.2	15.7	2.0	5.7	.....	6.2	8.1	8.6	28.5
24	0 22	6 22	−0 05*b*	6 33*b*	13.2	16.9	8.8	16.8	2.1	5.9	.....	6.5	8.7	9.1	28.5
25	0 25	6 27	−0 02*b*	6 38*b*	13.4	17.2	9.0	17.0	2.1	6.0	.....	6.5	8.8	9.3	28.5
26	0 35	6 23	0 06*b*	6 34*b*	12.1	15.5	8.1	15.6	2.0	5.7	.....	6.2	8.0	8.5	28.5
27	0 28	6 37	0 03*b*	6 47*b*	15.6	20.0	10.5	19.5	2.3	6.4	.....	7.0	10.0	10.6	29.0
28	0 25	6 27	−0 04*b*	6 38*b*	12.1	15.5	8.1	15.6	2.0	5.7	.....	6.2	8.0	8.5	29.0
29	0 28	6 33	0 01*b*	6 44*b*	13.6	17.4	9.1	17.2	2.1	6.0	.....	6.6	8.9	9.4	29.0
30	0 35	6 39	0 10*b*	6 49*b*	15.6	20.0	10.5	19.5	2.3	6.4	.....	7.0	10.0	10.6	29.0
31	0 32	6 38	0 03*b*	6 49*b*	11.7	15.0	7.8	15.1	1.9	5.6	.....	6.1	7.8	8.2	29.0
32	0 30	6 36	0 03*b*	6 47*b*	13.8	17.7	9.2	17.4	2.1	6.0	.....	6.6	9.0	9.5	29.0
33	0 06	6 19	−0 23*b*	6 30*b*	11.7	15.0	7.8	15.1	1.9	5.6	.....	6.1	7.8	8.2	28.0
34	0 08	6 17	−0 19*b*	6 28*b*	13.2	16.9	8.8	16.8	2.1	5.9	.....	6.5	8.7	9.1	28.5
35	0 09	6 18	−0 16*b*	6 29*b*	13.5	17.3	9.0	17.1	2.1	6.0	.....	6.5	8.8	9.4	28.5
36	0 13	6 22	−0 14*b*	6 33*b*	13.4	17.2	9.0	17.0	2.1	6.0	.....	6.5	8.8	9.3	28.5
37	0 17	6 26	−0 10*b*	6 37*b*	13.8	17.7	9.2	17.4	2.1	6.0	.....	6.6	9.0	9.5	28.5
38	0 25	6 35	−0 01*b*	6 45*b*	14.4	18.4	9.6	18.2	2.2	6.2	.....	6.7	9.4	9.9	28.5
39	0 30	6 41	0 03*b*	6 52*b*	13.0	16.6	8.7	16.6	2.1	5.9	.....	6.4	8.6	9.0	28.5
40	0 58	7 05	0 29*b*	7 16*b*	12.4	15.9	8.3	15.9	2.0	5.7	.....	6.3	8.2	8.7	28.5
41	0 28	6 38	0 01*b*	6 49*b*	13.3	17.0	8.9	16.9	2.1	5.9	.....	6.5	8.7	9.1	29.0
42	0 30	6 41	0 02*b*	6 52*b*	12.8	16.4	8.6	16.3	2.0	5.8	.....	6.4	8.4	8.9	29.0
43	0 31	6 42	0 04*b*	6 53*b*	13.7	17.5	9.2	17.3	2.1	6.0	.....	6.6	8.9	9.4	29.0
44	0 30	6 41	0 02*b*	6 52*b*	13.2	16.9	8.8	16.8	2.1	5.9	.....	6.5	8.7	9.1	29.0
45	0 25	6 36	−0 02*b*	6 47*b*	13.0	16.6	8.7	16.6	2.1	5.9	.....	6.4	8.6	9.0	29.0
46	0 07	6 20	−0 28*b*	6 34*b*	8.4	10.8	5.6	11.3	1.7	4.7	.....	5.2	5.8	6.2	28.0
47	0 12	6 23	−0 21*b*	6 36*b*	9.4	12.0	6.3	12.4	1.7	5.0	.....	5.5	6.4	6.9	28.0
48	0 11	6 22	−0 19*b*	6 34*b*	10.9	14.0	7.3	14.2	1.9	5.4	.....	5.9	7.3	7.7	28.0
49	0 13	6 23	−0 18*b*	6 35*b*	10.4	13.3	7.0	13.6	1.8	5.2	.....	5.7	7.0	7.2	28.5
50	0 17	6 26	−0 12*b*	6 37*b*	12.2	15.6	8.2	15.7	2.0	5.7	.....	6.2	8.1	8.6	28.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	ALASKA—continued.						Time meridian, 135° W.		Mean Lower Low Water.		
	Sumner Strait—Continued.	North.	West.								
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Duncan Canal Entrance	56 32	133 05	8 52	Sitka	159	+0 08	+0 05	+3.6	−1.2	1.62
2	St. John Harbor, Zarembo Island	56 26	132 57	8 52	Sitka	159	+0 07	+0 04	+4.0	−1.2	1.67
3	Wrangell, Wrangell Island	56 28	132 22	8 49	Sitka	159	+0 12	+0 09	+5.0	−1.2	1.79
4	Highfield Cannery	56 29	132 22	8 49	Sitka	159	+0 14	+0 11	+4.6	−1.2	1.75
5	Stikine River Ent., Pt. Rothsay	56 35	132 22	8 49	Sitka	159	+0 25	+0 30	+2.4	−1.4	1.48
	Wrangell Strait.								Two feet below Mean Lower Low Water.		
6	Point Lockwood, Woewodski Island	56 33	132 57	8 52	Sitka	159	+0 10	+0 08	+7.1	+1.6	1.71
7	Finger Point, Lindenberg Penin	56 41	132 56	8 52	Sitka	159	+0 35	+0 35	+8.7	+1.9	1.88
8	Prolewy Point, Lindenberg Penin	56 50	132 56	8 52	Sitka	159	+0 15	+0 13	+7.7	+1.7	1.77
	Keku Strait.								Mean Lower Low Water.		
9	Seclusion Harbor, Kuiu Island	56 33	133 52	8 55	Sitka	159	+0 05	−0 06	+0.6	−1.4	1.27
10	Port Camden, Kuiu Island	56 44	133 55	8 56	Sitka	159	+0 05	−0 20	+2.0	−1.4	1.42
11	Hamilton Bay, Kupreanof Island	56 55	133 50	8 55	Sitka	159	+0 03	−0 22	+1.6	−1.4	1.39
	Frederick Sound.										
12	Ideal Cove, Mitkof Island	56 40	132 38	8 51	Sitka	159	+0 27	+0 03	+3.4	−1.2	1.61
13	Brown Cove	56 53	132 48	8 51	Sitka	159	+0 12	+0 10	+5.0	−1.2	1.79
14	Thomas Bay	57 00	132 52	8 51	Sitka	159	+0 10	+0 07	+3.6	−1.2	1.63
15	Portage Bay, Kupreanof Island	57 00	133 19	8 53	Sitka	159	+0 07	+0 04	+3.8	−1.2	1.65
16	Cleveland Passage, Whitney I	57 13	133 30	8 54	Sitka	159	+0 05	+0 03	+3.8	−1.2	1.66
17	Pybus Bay, Admiralty Island	57 19	134 00	8 56	Sitka	159	+0 06	+0 05	+3.2	−1.2	1.58
18	Eliza Harbor, Liesnoi Island	57 10	134 17	8 57	Sitka	159	+0 04	+0 03	+2.8	−1.4	1.53
19	Saginaw Bay, Kuiu Island	56 55	134 13	8 57	Sitka	159	+0 03	+0 02	+2.3	−1.3	1.46
	Stephens Passage.										
20	Port Houghton, Robert Islands	57 18	133 28	8 54	Sitka	159	+0 06	+0 03	+3.6	−1.2	1.62
21	Hobart Bay, Entrance Island	57 25	133 26	8 54	Sitka	159	+0 07	+0 04	+3.6	−1.2	1.63
22	Snug Cove, Gambier Bay	57 26	133 57	8 56	Sitka	159	+0 10	+0 07	+3.8	−1.2	1.66
23	Windham Bay	57 33	133 30	8 54	Sitka	159	+0 09	+0 06	+3.6	−1.2	1.63
24	Mole Harbor, Seymour Canal	57 40	134 08	8 57	Sitka	159	+0 15	+0 11	+3.8	−1.2	1.65
25	Windfall Harbor, Seymour Canal	57 52	134 16	8 57	Sitka	159	+0 40	+0 35	+5.4	−1.2	1.84
26	Holkham Bay, Harbor Island	57 46	133 37	8 54	Sitka	159	+0 11	+0 07	+3.6	−1.2	1.62
27	Port Snettisham, Point Styleman	57 58	133 53	8 56	Sitka	159	+0 15	+0 11	+4.2	−1.2	1.70
28	Taku Harbor	58 04	134 00	8 56	Sitka	159	+0 16	+0 12	+5.0	−1.2	1.79
29	Taku Inlet, Greeley Point	58 13	134 05	8 56	Sitka	159	+0 19	+0 15	+5.2	−1.2	1.81
30	Juneau, Gastineau Channel	58 18	134 24	8 58	Sitka	159	+0 36	+0 35	+5.7	−1.1	1.88
31	Fritz Cove, Douglas Island	58 19	134 36	8 58	Sitka	159	+0 16	+0 17	+3.6	−1.2	1.63
	Lynn Canal.										
32	Funter Bay, Mansfield Peninsula	58 15	134 53	9 00	Sitka	159	+0 10	+0 13	+4.2	−1.2	1.68
33	Barlow Cove, Mansfield Peninsula	58 20	134 53	9 00	Sitka	159	+0 13	+0 15	+4.4	−1.2	1.72
34	William Henry Bay	58 43	135 14	9 01	Sitka	159	+0 18	+0 12	+3.6	−1.2	1.63
35	Pyramid Harbor, Chilkat Inlet	59 11	135 28	9 02	Sitka	159	+0 23	+0 14	+4.0	−1.2	1.67
36	Portage Bay, Chilkoot Inlet	59 14	135 26	9 02	Sitka	159	+0 25	+0 15	+5.8	−1.0	1.89
	Chatham Strait.										
37	Port Conclusion, Baranof Island	56 16	134 31	8 58	Sitka	159	−0 03	−0 02	−0.8	−1.6	1.10
38	Security Bay, Kuiu Island	56 51	134 21	8 57	Sitka	159	+0 02	0 00	+2.1	−1.3	1.44
39	Whitewater Bay, Admiralty Island	57 11	134 31	8 58	Sitka	159	+0 07	+0 04	+2.4	−1.2	1.48
40	Killisnoo, Kootznahoo Roads	57 28	134 34	8 58	Sitka	159	+0 10	+0 06	+2.6	−1.2	1.50
41	Favorite Bay, Kootznahoo Inlet	57 29	134 37	8 58	Sitka	159	+0 37	+0 33	+1.6	1.4	1.37
42	Mitchell Bay, Kootznahoo Inlet	57 31	134 29	8 58	Sitka	159	+1 49	+1 54	−0.3	−1.5	1.15
43	Freshwater Bay, Chichagof Island	57 51	135 01	9 00	Sitka	159	+0 18	+0 18	+2.9	−1.3	1.54
	Outer coast.								2 feet below Mean Lower Low Water.		
44	Bucareli Bay, Suemez Island	55 19	133 26	8 54	Sitka	159	−0 09	−0 08	+6.2	+1.4	1.62
45	Cape Ommaney, Baranof Island	56 10	134 32	8 58	Sitka	159	−0 04	−0 03	0.0	+0.1	0.98
46	SITKA, Baranof Island	57 03	135 20	9 01	Sitka	159	0 00	0 00	0.0	0.0	1.00
	Peril Strait.										
47	Point Thatcher	57 23	134 51	8 59	Sitka	159	+0 11	+0 07	+5.0	+1.1	1.50
48	Nismeni Cove	57 33	135 19	9 01	Sitka	159	+0 24	+0 22	+5.6	+1.3	1.55
49	Pogibshi Anchorage	57 30	135 32	9 02	Sitka	159	+0 26	+0 26	+6.1	+1.4	1.61
50	Bear Bay	57 25	135 29	9 02	Sitka	159	+0 17	+0 17	+3.0	+0.7	1.30
51	SERGIUS NARROWS*	57 24	135 31	9 02	Sitka	159	+0 15	+0 08	+1.7	+0.4	1.17
52	Haley Anchorage, Fish Bay	57 22	135 30	9 02	Sitka	159	+0 12	+0 04	+0.4	+0.1	1.04
53	Whitestone Narrows, Neva Strait	57 15	135 30	9 02	Sitka	159	+0 06	0 00	+0.3	+0.2	1.01

*The time of slack water at Sergius Narrows is given in Table 10 of this volume.

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW intervals.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	0 23	6 32	−0 05b	6 43b	12.5	16.0	8.4	16.0	2.0	5.8	.....	6.3	8.3	8.7	29.5
2	0 22	6 31	−0 04b	6 42b	12.9	16.5	8.6	16.5	2.0	5.9	.....	6.4	8.5	8.9	29.5
3	0 30	6 39	0 03b	6 50b	13.8	17.7	9.2	17.4	2.1	6.0	.....	6.6	9.0	9.5	29.5
4	0 32	6 41	0 05b	6 52b	13.5	17.3	9.0	17.1	2.1	6.0	.....	6.5	8.8	9.4	29.5
5	0 45	7 00	0 15b	7 12b	11.4	14.6	7.6	14.7	1.9	5.5	.....	6.0	7.6	8.1	29.5
6	0 25	6 35	−0 02b	6 46b	13.2	16.9	8.8	16.8	2.1	5.9	.....	6.5	11.5	9.1	29.5
7	0 50	7 02	0 24b	7 12b	14.5	18.6	9.7	18.3	2.2	6.2	.....	6.8	12.4	9.9	29.5
8	0 30	6 40	0 04b	6 51b	13.7	17.5	9.2	17.3	2.1	6.0	.....	6.6	11.8	9.4	29.5
9	0 17	6 18	−0 14b	6 31b	9.8	12.5	6.6	12.9	1.8	5.1	.....	5.6	6.7	7.1	29.5
10	0 16	6 03	−0 14b	6 15b	11.0	14.1	7.4	14.3	1.9	5.4	.....	5.9	7.4	7.8	29.5
11	0 15	6 02	−0 15b	6 14b	10.7	13.7	7.2	13.9	1.9	5.3	.....	5.8	7.2	7.7	29.5
12	0 43	6 31	0 15b	6 42b	12.4	15.9	8.3	15.9	2.0	5.7	.....	6.3	8.2	8.7	29.5
13	0 28	6 38	0 02b	6 49b	13.8	17.7	9.2	17.4	2.1	6.0	.....	6.6	9.0	9.5	29.5
14	0 26	6 35	−0 02b	6 46b	12.6	16.1	8.4	16.1	2.0	5.8	.....	6.3	8.3	8.8	29.5
15	0 21	6 30	−0 07b	6 41b	12.7	16.3	8.5	16.2	2.0	5.8	.....	6.3	8.4	8.9	29.5
16	0 18	6 28	−0 10b	6 39b	12.8	16.4	8.6	16.3	2.0	5.8	.....	6.4	8.4	8.9	30.0
17	0 17	6 27	−0 12b	6 38b	12.2	15.6	8.2	15.7	2.0	5.7	.....	6.2	8.1	8.6	30.0
18	0 14	6 24	−0 15b	6 35b	11.8	15.1	7.9	15.2	2.0	5.6	.....	6.1	7.8	8.3	29.5
19	0 13	6 23	−0 17b	6 35b	11.3	14.5	7.6	14.6	1.9	5.5	.....	6.0	7.6	8.0	29.5
20	0 19	6 28	−0 09b	6 39b	12.5	16.0	8.4	16.0	2.0	5.8	.....	6.3	8.3	8.7	30.0
21	0 20	6 29	−0 08b	6 40b	12.6	16.1	8.4	16.1	2.0	5.8	.....	6.3	8.3	8.8	30.0
22	0 21	6 30	−0 07b	6 41b	12.8	16.4	8.6	16.3	2.0	5.8	.....	6.4	8.4	8.9	30.0
23	0 22	6 31	−0 06b	6 42b	12.6	16.1	8.4	16.1	2.0	5.8	.....	6.3	8.3	8.8	30.0
24	0 25	6 33	−0 03b	6 44b	12.7	16.3	8.5	16.2	2.0	5.8	.....	6.3	8.4	8.9	30.5
25	0 50	6 57	0 23b	7 07b	14.2	18.2	9.5	17.9	2.1	6.1	.....	6.7	9.2	9.7	30.5
26	0 24	6 32	−0 04b	6 43b	12.5	16.0	8.4	16.0	2.0	5.8	.....	6.3	8.3	8.7	30.5
27	0 26	6 34	−0 01b	6 45b	13.1	16.8	8.8	16.7	2.1	5.9	.....	6.4	8.6	9.1	30.5
28	0 27	6 35	0 00b	6 46b	13.8	17.7	9.2	17.4	2.1	6.0	.....	6.6	9.0	9.5	30.5
29	0 30	6 38	0 03b	6 49b	14.0	17.9	9.4	17.7	2.1	6.1	.....	6.7	9.1	9.6	30.5
30	0 45	6 56	0 19b	7 06b	14.5	18.6	9.7	18.3	2.2	6.2	.....	6.8	9.4	9.9	30.5
31	0 25	6 38	−0 03b	6 49b	12.6	16.1	8.4	16.1	2.0	5.8	.....	6.3	8.3	8.8	30.5
32	0 17	6 32	−0 10b	6 43b	13.0	16.6	8.7	16.6	2.1	5.9	.....	6.4	8.6	9.0	30.5
33	0 20	6 34	−0 07b	6 45b	13.3	17.0	8.9	16.9	2.1	5.9	.....	6.5	8.7	9.1	30.5
34	0 24	6 30	−0 04b	6 41b	12.6	16.1	8.4	16.1	2.0	5.8	.....	6.3	8.3	8.8	31.0
35	0 28	6 31	0 00b	6 42b	12.9	16.5	8.6	16.5	2.0	5.9	.....	6.4	8.5	8.9	31.0
36	0 30	6 32	0 04b	6 44b	14.6	18.7	9.8	18.4	2.2	6.2	.....	6.8	9.5	10.0	31.0
37	0 06	6 19	−0 28b	6 32b	8.5	10.9	5.8	11.4	1.7	4.8	.....	5.2	5.9	6.3	30.0
38	0 12	6 22	−0 18b	6 34b	11.1	14.2	7.5	14.4	1.9	5.4	.....	5.9	7.5	7.9	29.5
39	0 16	6 25	−0 14b	6 37b	11.4	14.6	7.8	14.7	1.9	5.5	.....	6.0	7.6	8.1	29.5
40	0 19	6 27	−0 11b	6 39b	11.6	14.8	7.9	15.0	1.9	5.6	.....	6.1	7.8	8.2	30.0
41	0 46	6 54	0 15b	7 06b	10.6	13.6	7.2	13.8	1.9	5.3	.....	5.8	7.2	7.6	30.0
42	1 58	6 15	1 24b	8 28b	8.9	11.4	6.1	11.9	1.7	4.9	.....	5.3	6.2	6.5	30.0
43	0 25	6 37	−0 05b	6 48b	11.9	15.2	8.1	15.3	2.0	5.6	.....	6.1	7.9	8.4	30.0
44	0 04	6 16	−0 24b	6 27b	12.5	16.0	8.5	16.0	2.0	5.8	.....	6.3	10.9	8.7	28.5
45	0 05	6 17	−0 31b	6 31b	7.6	9.7	5.2	10.3	1.6	4.5	.....	4.9	7.2	5.7	29.5
46	0 06	6 17	−0 30b	6 33b	7.7	9.9	5.2	10.2	2.1	4.4	8 02	4.9	7.4	5.6	29.5
47	0 19	6 27	−0 11b	6 39b	11.6	14.8	7.9	15.0	1.9	5.6	.....	6.1	10.2	8.2	30.0
48	0 30	6 40	0 01b	6 51b	12.0	15.4	8.2	15.4	2.0	5.6	.....	6.2	10.6	8.4	30.0
49	0 31	6 43	0 02b	6 54b	12.4	15.9	8.4	15.9	2.0	5.7	.....	6.3	10.9	8.7	29.5
50	0 22	6 34	−0 09b	6 46b	10.0	12.8	6.7	13.2	1.8	5.2	.....	5.6	9.0	7.2	29.5
51	0 20	6 25	−0 13b	6 38b	9.0	11.5	6.1	12.0	1.7	4.9	.....	5.3	8.2	6.6	29.5
52	0 17	6 21	−0 18b	6 35b	8.0	10.2	5.4	10.8	1.6	4.6	.....	5.0	7.4	6.0	29.5
53	0 11	6 17	−0 25b	6 31b	7.8	10.0	5.3	10.5	1.6	4.5	.....	5.0	7.4	5.8	29.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	ALASKA—continued.						*Time meridian, 135° W.*		*Mean Lower Low Water.*		
	Icy Strait and Cross Sound.	*North.* ° ′	*West.* ° ′	h. m.			h. m.	h. m.	*feet.*	*feet.*	
1	Swanson Harbor	58 13	135 07	9 00	Sitka	159	+0 29	+0 28	+ 3.8	−1.2	1.64
2	Hooniah, Port Frederick	58 07	135 28	9 02	Sitka	159	+0 30	+0 29	+ 3.6	−1.6	1.69
3	Inian Cove	58 16	136 19	9 05	Sitka	159	−0 22	+0 34	0.0	−1.8	1.25
4	Port Althorp	58 07	136 17	9 05	Sitka	159	−0 47	−0 15	− 1.8	−1.8	1.04
5	Granite Cove	58 12	136 24	9 06	Sitka	159	+0 05	+0 01	− 1.2	−2.0	1.09
	Outer coast.										
6	Port Mulgrave, Yakutat Bay	59 34	139 46	9 19	Sitka	159	+0 47	+0 43	− 2.0	−1.8	0.95
7	Icy Bay	59 55	141 18	9 25	Sitka	159	+0 49	+0 50	− 2.1	−1.7	0.94
8	Cape St. Elias	59 45	144 52	9 39	Sitka	159	+1 13	+1 14	− 2.3	−1.7	0.91
							Time meridian, 150° W.				
9	Copper R. Delta, Kokinhenic I.	60 18	145 03	9 40	Kodiak	163	−0 32	+0 12	− 5.8	−1.4	0.36
10	Copper R. Delta, Pete Dahl Slough	60 29	145 24	9 42	Kodiak	163	−0 33	−0 07	+ 1.0	+0.2	1.10
11	Eyak River Entrance	60 28	145 40	9 43	Kodiak	163	−0 25	+0 13	− 0.2	−0.2	0.99
	Prince William Sound.										
12	Port Etches or Nuchek	60 21	146 38	9 47	Kodiak	163	+0 11	+0 18	+ 0.8	0.0	1.11
13	Orca Inlet (Cape Whitshed)	60 28	145 55	9 44	Kodiak	163	−0 38	−0 14	+ 3.1	+0.3	1.40
14	Point Johnstone, Hinchinbrook I.	60 29	146 32	9 46	Kodiak	163	−0 41	−0 59	+ 2.0	+0.2	1.26
15	Cordova Bay, Hawkins I.	60 32	146 00	9 44	Kodiak	163	−0 47	−0 46	+ 3.0	+0.2	1.39
16	Orca	60 35	145 41	9 43	Kodiak	163	−0 38	−0 44	+ 3.2	+0.2	1.42
17	Valdez Arm	61 07	146 27	9 46	Kodiak	163	−0 52	−0 52	+ 3.0	+0.4	1.39
18	Chalmers Harbor, Montague I	60 15	147 22	9 49	Kodiak	163	+0 23	+0 35	+ 3.6	+0.2	1.46
	Cook Inlet.										
19	Port Chatham	59 12	151 44	10 07	Kodiak	163	+0 57	+1 02	+ 2.2	+0.2	1.28
20	Seward Kachemak Bay	59 43	151 14	10 05	Kodiak	163	+0 30	+0 32	+10.1	+0.7	2.34
21	Fort Kenai, Kaknu River	60 32	151 19	10 05	Kodiak	163	+2 30	+2 42	+ 8.6	+0.6	2.16
22	Point Possession	61 04	150 26	10 02	Kodiak	163	+4 07	+4 24	+14.6	+0.8	2.89
23	Turnagain Bay	60 56	149 30	9 58	Kodiak	163	+5 03	+5 25	+16.0	+1.0	3.17
24	Knik River	61 17	149 58	10 00	Kodiak	163	+4 40	+4 57	+14.9	+0.9	3.02
	Kodiak Island.										
25	KODIAK (St. Paul)	57 48	152 21	10 09	Kodiak	163	0 00	0 00	0.0	0.0	1.00
26	Karluk River, Shelikof Strait	57 38	154 11	10 17	Kodiak	163	+0 29	+0 34	+ 0.2	0.0	1.04
	Alaska Peninsula.										
27	Katmai Bay, Shelikof Strait	58 05	154 49	10 19	Kodiak	163	+0 34	+0 39	+ 0.5	0.0	1.06
28	Semidi Islands, Chowiet Island	56 01	156 43	10 27	Kodiak	163	+1 48	+1 53	− 0.9	−0.1	0.89
29	Shumagin Islands, Simeonof I	54 55	159 16	10 37	Kodiak	163	+2 33	+2 38	− 1.3	−0.1	0.83
30	Zacharefskaia Bay, Unga Strait	55 21	160 39	10 43	Kodiak	163	+2 59	+3 06	− 0.8	0.0	0.91
	Sannak Islands.						*Time meridian, 165° W.*				
31	Peterson Bay	54 23	162 38	10 51	Kodiak	163	−0 45	−0 31	− 2.5	+0.1	0.63
32	Acherk Harbor	54 29	162 48	10 51	Kodiak	163	−0 47	−0 25	− 1.6	+0.2	0.73
	Aleutian Islands.										
33	Ikatan Bay, Unimak Island	54 46	163 20	10 53	Kodiak	163	−0 24	−0 16	− 2.4	+0.2	0.64
34	Tigalda Bay, Tigalda Island	54 05	165 10	11 01	St. Michael	167	−6 53	−7 35	− 0.6	+0.4	0.76
35	Unalga Bay, Unalga Island	54 00	166 10	11 05	Port Townsend	155	−0 19	−0 36	− 6.8	−2.8	0.23
36	Dutch Har., Unalaska Island	53 54	166 32	11 06	Port Townsend	155	+0 05	+0 29	− 6.0	−2.8	0.38
37	Iliuliuk, Unalaska Island	53 53	166 32	11 06	Port Townsend	155	+0 04	+0 27	− 5.6	−2.6	0.44
38	Kashega Bay, Unalaska Island	53 28	167 05	11 08	Port Townsend	155	−0 32	−0 02	− 6.4	−2.6	0.29
39	Eagle Bay, Unalaska Island	53 28	166 54	11 08	Port Townsend	155	−2 57	−2 47	− 3.7	−2.3	0.73
40	Idak Cove, Unimak Island	53 27	167 42	11 11	St. Michael	167	−7 07	−6 16	− 0.4	−0.2	0.98
41	Adakh Island	51 49	176 52	11 47	Port Townsend	155	+0 21	+0 49	− 3.3	−2.1	0.77
42	Kiska Island	51 49	182 30	12 10	Port Townsend	155	+0 50	+1 18	− 3.2	−2.0	0.79
43	Attu Island	52 56	186 48	12 27	Port Townsend	155	+1 13	+1 41	− 2.6	−2.0	0.87
	Bering Sea.										
44	St. Paul Island, Pribilof Islands	57 08	170 18	11 21	Port Townsend	155	+0 46	+1 13	− 6.0	−2.8	0.40
45	Goodnews Bay	59 02	161 45	10 47	Port Townsend	155	+2 09	+2 49	− 3.6	−2.4	0.79
46	Kuskokwim Bay	59 40	161 50	10 47	Port Townsend	155	+2 19	+2 59	+ 3.4	−1.4	1.98
47	Nunivak Island	60 04	167 15	11 09	Sitka	388	−4 59	−5 18	− 7.4	−2.6	0.39
48	St. Matthew Island	60 20	172 25	11 30	Port Townsend	155	+1 19	+1 54	− 5.6	−2.8	0.46
49	St. Lawrence Island	63 20	170 00	11 20	Port Townsend	155	+2 03	+2 33	− 7.0	−3.2	0.25

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	0 36	6 46	0 33b	7 08b	12.8	16.8	7.2	18.0	3.2	5.2	.....	6.1	8.4	10.2	30.5
2	0 35	6 45	0 27b	6 55b	13.0	17.0	8.6	15.0	2.8	4.6	.....	5.4	8.1	9.9	30.0
3	12 05	6 47	11 56a	6 59b	9.6	12.6	6.3	11.3	2.4	4.0	.....	4.7	6.2	7.8	30.0
4	12 10	5 58	11 38a	6 11b	7.9	10.0	5.3	10.1	1.6	4.1	.....	4.4	5.3	5.6	30.0
5	0 06	6 13	0 02b	7 00b	8.4	10.7	5.7	10.6	2.6	3.8	.....	4.6	5.5	7.0	30.0
6	0 34	6 41	— 0 02b	6 57b	7.4	9.5	5.0	10.1	1.6	4.4	.....	4.8	5.2	5.6	30.5
7	0 30	6 42	— 0 06b	6 56b	7.3	9.4	4.9	10.0	1.6	4.4	.....	4.8	5.2	5.5	30.0
8	0 40	6 52	0 08b	7 07b	7.1	9.1	4.8	9.7	1.5	4.3	.....	4.7	5.1	5.4	28.5
9	0 14	6 42	0 04b	7 19b	2.5	3.0	1.8	3.3	1.5	0.5	11 29	1.5	1.2	1.4	28.5
10	0 11	6 45	12 04b	7 04b	7.7	9.7	5.4	10.7	2.9	4.3	8 49	4.9	5.4	5.6	28.5
11	0 18	7 04	— 0 53b	7 17b	6.9	9.3	4.1	9.7	2.5	3.0	.....	3.9	4.6	5.7	28.5
12	0 50	7 05	0 21b	7 25b	7.8	10.1	5.1	10.6	2.8	3.8	.....	4.8	5.2	5.5	28.5
13	0 04	6 36	12 00a	6 51b	9.8	12.8	6.3	12.6	2.9	4.7	8 28	5.2	6.5	6.7	28.5
14	12 24	5 49	11 54a	6 05b	8.8	11.1	5.7	11.5	2.3	4.3	.....	4.8	5.9	6.2	28.5
15	12 20	6 04	11 52a	6 19b	9.7	12.6	6.3	12.4	2.4	4.5	8 00	5.0	6.4	6.7	28.5
16	0 05	6 07	12 01a	6 24b	9.9	12.9	6.3	12.7	2.7	4.4	8 22	5.1	6.5	6.7	28.5
17	12 13	5 56	11 44a	6 13b	9.7	12.5	6.2	12.6	2.6	4.7	7 59	5.4	6.5	6.8	28.0
18	1 00	7 20	0 35b	7 38b	10.2	13.3	6.6	13.5	3.2	4.4	.....	5.5	6.7	6.9	27.5
19	1 15	7 28	0 48b	7 47b	9.0	11.7	5.8	12.1	3.0	4.1	.....	5.2	6.0	6.8	25.0
20	0 50	7 00	0 20b	7 15b	16.4	21.2	10.7	20.5	4.1	5.5	.....	7.0	10.2	10.6	25.5
21	2 50	9 10	2 29b	9 25b	15.0	19.5	9.7	19.1	3.9	5.3	.....	6.7	9.4	9.7	26.0
22	4 30	10 55	4 13b	11 08b	20.1	26.1	13.1	24.7	4.5	6.1	.....	7.7	12.2	12.5	27.0
23	5 30	12 00	5 13b	12 12b	22.0	28.6	14.3	26.8	4.7	6.4	.....	8.1	13.3	13.6	27.0
24	5 05	11 30	4 48b	11 43b	21.0	27.3	13.7	25.7	4.6	6.3	.....	7.9	12.7	13.1	27.0
25	0 16	6 24	— 0 14b	6 46b	7.0	9.0	4.5	9.6	2.7	3.6	8 56	4.5	4.8	5.0	24.0
26	0 37	6 50	0 08b	7 11b	7.2	9.4	4.7	10.0	2.7	3.7	.....	4.6	4.9	5.1	23.0
27	0 40	6 53	0 11b	7 14b	7.4	9.6	4.8	10.2	2.8	3.7	.....	4.7	5.0	5.2	23.0
28	1 45	7 58	1 13b	8 21b	6.2	8.1	4.0	8.7	2.5	3.4	.....	4.3	4.3	4.5	21.5
29	2 20	8 33	1 47b	8 57b	5.8	7.5	3.8	8.3	2.4	3.3	.....	4.2	4.1	4.3	20.5
30	2 40	8 55	2 09b	9 17b	6.3	8.2	4.1	8.8	2.5	3.4	.....	4.3	4.4	4.6	20.0
31	12 13	6 10	11 15a	6 30b	4.4	5.7	2.8	7.0	1.8	4.1	7 34	4.4	3.6	4.0	19.5
32	12 11	6 16	11 17a	6 35b	5.1	6.6	3.3	7.9	1.9	4.4	.....	4.7	4.1	4.5	19.5
33	0 07	6 23	— 0 51b	6 43b	4.5	5.9	2.9	7.1	1.8	4.1	.....	4.5	3.7	4.1	19.5
34	[2 08]	[8 04]	0 08b	8 55b	[0.9]	[1.4]	[0.2]	3.5	.....	.....	9 35	3.5	1.2	1.7	18.5
35	3 28	8 56	6 30a	9 13b	1.2	1.3	1.0	4.0	0.4	3.6	9 32	3.6	1.9	2.5	18.0
36	3 51	10 00	1 43b	10 02b	2.0	2.2	1.9	4.3	0.4	3.7	10 02	3.6	2.3	2.7	18.0
37	3 50	9 58	1 44b	10 00b	2.3	2.9	1.5	4.9	0.5	4.0	.....	3.9	2.6	3.0	18.0
38	3 12	9 27	0 23b	9 32b	1.5	1.7	1.3	4.3	0.5	3.9	9 34	3.8	2.2	2.7	17.5
39	0 47	6 42	— 0 36b	7 52b	3.8	4.5	2.9	6.8	1.1	5.0	.....	5.1	3.7	4.0	17.5
40	[11 22]	[9 37]	12 09a	10 04b	[3.7]	[4.2]	[3.2]	4.3	.....	.....	.....	4.2	1.0	2.2	17.5
41	3 25	9 38	4 53a	9 32b	4.0	5.0	2.6	7.6	2.0	5.8	.....	6.1	4.0	4.4	13.5
42	3 30	9 43	4 56a	9 37b	4.1	5.2	2.7	7.7	2.0	5.8	.....	6.1	4.1	4.5	10.5
43	3 35	9 48	4 57a	9 42b	4.5	5.7	2.9	8.3	2.1	6.1	.....	6.4	4.4	4.8	8.0
44	4 17	10 29	6 15a	10 37b	2.1	2.7	1.4	4.0	0.6	3.5	.....	3.6	2.3	2.8	16.5
45	6 15	0 15	7 38a	0 21a	4.1	5.2	2.7	6.7	0.8	4.9	.....	5.0	3.7	4.5	20.5
46	6 25	0 25	7 18a	0 29a	10.1	13.0	6.8	14.2	1.3	7.7	.....	7.9	7.7	8.9	20.5
47	7 20	0 47	7 10a	0 52b	3.0	3.9	2.1	5.5	1.5	1.6	.....	2.2	2.1	2.8	19.0
48	4 40	11 00	6 27a	11 08b	2.4	3.1	1.6	4.4	0.6	3.7	.....	3.8	2.5	3.0	16.5
49	5 35	11 50	8 01a	12 01b	1.3	1.7	0.9	2.8	0.5	2.7	.....	2.8	1.6	2.0	18.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	NORTH AMERICA (WEST COAST)—Continued.										
	ALASKA—continued.										
	Norton Sound, Bering Sea.	*North.*	*West.*				*Time meridian, 165° E.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Cape Dyer	61 49	166 05	11 04	Kodiak	163	− 0 44	− 0 87	− 2.4	−0.6	0.75
2	Kripniyuk	62 20	165 19	11 01	Kodiak	163	+ 0 28	+ 0 40	− 3.9	−0.7	0.55
3	Yukon R., Delta, Kwiklok Pass	62 37	164 51	10 59	Kodiak	163	+ 2 41	+ 4 18	− 6.8	−1.2	0.21
4	Yukon R., Delta, Kwikpak Pass	63 00	164 45	10 59	Kodiak	163	+ 2 18	+ 3 23	− 6.2	−1.0	0.26
5	Yukon R., Delta, Apoon Pass	63 05	163 32	10 54	St. Michael	167	− 1 18	− 1 42	+ 0.2	0.0	1.04
6	Pitmiktalik	63 16	162 34	10 50	St. Michael	167	− 1 02	− 1 01	+ 0.4	0.0	1.09
7	ST. MICHAEL	63 29	162 02	10 48	St. Michael	167	0 00	0 00	0.0	0.0	1.00
8	North Bay, Stuart Island	63 37	162 30	10 50	St. Michael	167	− 0 22	− 0 16	− 0.2	+0.2	0.89
9	Golofnin Bay	64 32	163 00	10 52	St. Michael	167	+ 1 20	+ 2 16	− 0.2	+0.2	0.93
10	Nome	64 30	165 26	11 02	St. Michael	167	+ 1 50	+ 5 06	− 1.6	+1.0	0.46
	Bering Sea—Continued.										
11	Port Clarence	65 13	166 24	11 06	Kodiak	163	+ 5 53	+ 7 10	− 6.9	−0.9	0.14
	Arctic Ocean.										
12	Chamisso Island, Kotzebue Sound	66 15	161 45	10 47	Honolulu	205	+ 8 59	+ 4 16	+ 0.6	+0.5	1.10
13	Point Barrow	71 18	156 40	10 27	Honolulu	205	+ 7 54	+ 7 58	− 0.6	+0.2	0.34
	ASIA (EAST COAST).										
	SIBERIA.										
	Bering Sea—Continued.		*East.*				*Local time.*				
14	St. Lawrence Bay	65 38	189 00	12 36	Batavia	197	+ 7 35	+ 4 35	+ 1.4	−0.4	1.68
15	Plover Bay	64 22	186 38	12 27	Batavia	197	+ 5 57	+ 4 00	+ 1.4	−0.6	1.76
16	Anadir Bay	64 43	178 20	11 53	Batavia	197	+ 7 31	+ 4 31	+ 6.5	−1.6	4.20
17	Cape Olliutorsk	59 55	170 21	11 21	Aden	257	+10 19	+10 17	0.0	+0.4	0.91
18	Bering Island, Komandorski Ids	55 14	165 52	11 03	Aden	257	+ 8 20	+ 8 16	+ 0.4	+0.4	0.97
	Kamchatka.										
19	Petropavlovsk, Avatcha Bay	53 00	158 43	10 35	Aden	257	+ 7 51	+ 7 49	+ 0.6	+0.4	1.05
20	Cape Lopatka, Kuril Strait	50 45	156 50	10 27	Aden	257	+ 7 16	+ 8 12	+ 0.2	+0.4	0.94
	Okhotsk Sea.										
21	Tigil River Entr., Kamchatka	58 01	158 10	10 33	Aden	257	−11 59	−12 01	+11.4	+1.4	3.78
22	Gighiga River Entrance	62 00	160 40	10 43	Aden	257	− 7 24	− 7 11	+12.6	+1.4	4.12
23	Port Alan	56 25	138 30	9 14	Aden	257	− 7 51	− 6 48	+ 3.8	+0.7	1.71
24	Amur River Entrance	52 56	141 15	9 25	Aden	257	− 8 42	− 8 36	+ 0.1	+0.3	0.94
25	North Bay, Sakhalin Island	54 20	142 35	9 30	Aden	257	− 9 07	− 9 11	− 0.1	+0.4	0.86
	Russian Tartary.										
26	Castries Bay	51 26	140 52	9 23	Port Townsend	155	− 6 15	− 5 40	− 3.4	−3.0	0.90
27	Dui Road, Sakhalin Island	50 50	142 06	9 28	Port Townsend	155	− 6 20	− 5 45	− 4.4	−3.0	0.75
28	Barracouta Harbor	49 02	140 19	9 21	Port Townsend	155	− 7 10	− 6 40	− 6.5	−3.3	0.38
29	Aniwa Bay, Sakhalin Island	46 29	143 18	9 33	Aden	257	− 0 02	+ 0 54	− 1.6	+0.2	0.52
30	Olga Bay	43 42	135 12	9 01	Port Townsend	155	− 3 39	− 3 09	− 6.6	−3.4	0.36
31	Vladivostok	43 07	131 54	8 48	Port Townsend	155	− 1 45	− 1 15	− 7.3	−3.5	0.27
	JAPAN.										
	Northeast Islands.						*Time meridian, 135° E.*				
32	Shakotan	43 52	146 49	9 47	Aden	257	+ 7 09	+ 7 04	− 1.6	+0.2	0.52
33	Taraku Sima	43 38	146 20	9 45	Yokohama	169	− 2 20	− 2 12	− 1.7	−0.1	0.55
34	Shuisho Sima	43 27	145 52	9 43	Aden	257	+ 7 28	+ 7 23	− 1.0	+0.4	0.65
	Yezo Island.										
35	Soya Saki	45 31	141 54	9 28	Aden	257	−10 25	−10 29	+ 0.6	+0.6	1.02
36	Notsuke Harbor	43 33	145 18	9 41	Aden	257	+ 8 32	+ 8 30	− 0.2	+0.4	0.80
37	Nemoro	43 20	145 35	9 42	Galveston	123	+ 3 25	+10 34	+ 1.6	+0.4	1.73
38	Akkeshi	43 02	144 51	9 39	Aden	257	+ 7 25	+ 7 20	− 1.1	+0.3	0.62
39	Kushiro	43 00	144 22	9 37	Port Townsend	155	− 1 34	− 1 07	− 6.4	−3.2	0.37
40	Mororan, Endermo Harbor	42 20	141 07	9 24	Aden	257	+ 7 31	+ 7 27	− 0.6	+0.4	0.72
41	Hakodate, Tsugar Strait	41 48	140 42	9 23	Aden	257	+ 7 40	+ 7 43	− 1.1	+0.3	0.61
42	Otaru, Sea of Japan	43 12	140 54	9 24	Port Townsend	155	− 1 09	− 0 42	− 8.7	−3.9	0.08

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	12 00	5 50	11 25a	6 15b	5.2	6.7	3.4	7.4	2.3	3.1	.....	3.9	3.3	3.8	19.5
2	0 50	7 10	0 08b	7 41b	3.8	4.9	2.5	5.8	2.0	2.7	.....	3.3	2.5	3.0	19.5
3	3 05	10 50	1 59b	11 39b	1.4	1.8	0.9	2.4	1.2	1.6	.....	2.0	0.8	1.3	20.0
4	2 42	9 55	1 43b	10 39b	1.8	2.3	1.2	3.1	1.3	1.8	.....	2.3	1.2	1.6	21.0
5	[6 50]	[1 00]	5 50b	2 30a	[1.2]	[1.0]	[1.1]	4.8	.....	.....	.....	4.6	1.4	2.1	21.5
6	[7 10]	[1 45]	6 10b	3 15a	[1.3]	[1.1]	[1.2]	5.0	.....	.....	.....	4.8	1.5	2.2	21.5
7	[8 07]	[1 27]	7 14b	4 18a	[1.4]	[1.4]	[0.9]	4.6	.....	.....	18 37	4.3	1.3	2.0	22.5
8	[7 50]	[2 30]	6 50b	4 00a	[0.9]	[1.0]	[0.8]	4.1	.....	.....	.....	1.4	1.3	1.8	22.5
9	[6 05]	[12 00]	8 30b	6 30a	[1.0]	[1.1]	[0.9]	4.3	.....	.....	.....	4.2	1.3	1.9	22.5
10	[2 05]	[8 25]	11 50b	9 10b	[1.3]	[1.5]	[0.8]	2.1	.....	.....	.....	1.8	1.0	1.1	21.5
11	6 10	1 10	5 29b	1 14b	1.0	1.1	0.9	1.5	0.3	0.8	13 46	0.8	0.9	0.9	21.0
12	7 45	1 50	7 34a	1 39a	1.3	2.0	0.6	1.8	0.7	0.2	.....	0.7	1.3	0.8	24.0
13	11 41	5 33	11 20a	5 12a	0.4	0.6	0.2	0.7	0.4	0.1	12 40	0.4	0.5	0.3	34.0
14	[6 10]	[12 10]	5 17b	14 45b	[0.8]	.....	.....	4.2	.....	.....	.....	4.0	1.3	1.9	18.5
15	[5 32]	[11 32]	4 39b	14 10b	[0.9]	.....	.....	4.4	.....	.....	.....	4.2	1.3	2.0	16.5
16	[6 05]	[12 05]	5 12b	14 40b	[2.1]	.....	.....	10.5	.....	.....	.....	10.3	3.3	5.0	12.5
17	6 00	12 15	5 00b	12 27b	3.3	4.5	1.8	4.8	0.7	2.8	.....	2.9	2.6	2.7	7.0
18	4 00	10 13	3 03b	10 25b	3.5	4.7	1.9	5.0	0.7	2.9	.....	3.0	2.8	2.9	3.5
															West.
19	3 30	9 45	2 35b	9 57b	3.8	5.1	2.1	5.4	0.7	3.0	.....	3.1	2.9	3.1	1.5
20	3 55	10 08	2 58b	10 19b	3.4	4.6	1.9	4.9	0.7	2.8	.....	2.9	2.7	2.9	1.5
21	8 30	2 20	8 01b	2 26a	13.7	18.5	7.5	16.7	1.4	5.7	.....	5.9	8.8	9.2	1.5
22	0 40	7 10	0 13a	7 16a	14.8	20.0	8.1	18.0	1.4	5.9	.....	6.1	9.4	9.9	1.0 E
23	0 10	7 30	— 0 33a	7 39a	6.2	8.4	3.4	8.2	0.9	3.8	.....	4.0	4.4	4.7	9.0 W
24	11 45	5 45	10 48b	5 56a	3.4	4.6	1.9	4.9	0.7	2.8	.....	2.9	2.6	2.9	8.0 W
25	11 20	5 08	10 20b	5 21a	3.1	4.2	1.7	4.5	0.6	2.7	.....	2.8	2.5	2.7	7.5 W
															West.
26	10 45	4 40	9 55b	5 49a	4.7	6.3	2.6	6.3	0.8	3.3	.....	3.5	3.5	3.6	7.5
27	10 40	4 35	9 46b	4 46a	3.9	5.2	2.2	5.5	0.7	3.0	.....	3.1	3.0	3.2	7.0
28	9 50	3 40	8 36b	3 55a	2.0	2.7	1.1	3.2	0.5	2.2	.....	2.2	1.8	2.0	7.5
29	8 00	2 48	6 42b	3 04a	1.9	2.6	1.1	3.0	0.5	2.1	.....	2.2	1.7	1.9	6.0
30	0 55	7 10	— 0 23a	7 26a	1.9	2.5	1.1	3.0	0.5	2.1	.....	2.2	1.7	1.9	6.5
31	2 45	9 00	1 13a	9 19a	1.4	1.9	0.8	2.4	0.4	1.8	.....	1.9	1.3	1.6	6.5
32	3 34	9 46	2 16b	10 02b	1.9	2.6	1.0	3.0	0.5	2.1	10 40	2.2	1.7	1.8	4.5
33	3 31	9 44	5 09a	9 39b	1.9	2.7	0.9	3.2	0.3	2.4	9 22	2.4	1.8	1.9	4.5
34	3 48	10 00	2 32b	10 22b	2.3	3.1	1.4	4.0	0.9	2.7	11 13	2.9	2.1	2.4	4.5
35	10 30	4 18	9 29b	4 35a	3.7	4.8	2.4	5.8	1.1	3.4	.....	3.7	3.0	3.8	6.0
36	4 50	11 05	3 43b	11 24b	2.9	3.7	1.8	4.7	1.0	3.0	.....	3.2	2.5	2.7	5.0
37	3 33	9 46	— 0 29b	9 49b	1.5	2.1	0.5	2.6	0.3	2.5	9 47	2.5	1.6	1.6	4.5
38	3 41	9 53	2 18b	10 00b	2.2	3.0	1.4	3.6	0.4	2.6	10 14	2.7	2.0	2.2	5.0
39	3 39	9 51	1 52b	9 54b	1.9	2.6	1.1	3.3	0.3	2.7	9 53	2.7	1.9	2.1	5.0
40	3 32	9 45	2 13b	9 56b	2.6	3.5	1.5	4.1	0.5	2.9	10 20	3.0	2.3	2.5	5.5
41	3 40	10 00	2 15b	10 11b	2.2	3.0	1.2	3.6	0.4	2.7	.....	2.7	2.0	2.2	5.5
42	3 50	10 02	1 42a	10 10a	0.4	0.5	0.3	0.8	0.1	0.7	22 38	0.7	0.4	0.5	6.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	ASIA (EAST COAST)—Continued.										
	JAPAN—continued.										
	Nipon Island.	*North.*	*East.*				*Time meridian, 135° E.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Moura	40 57	140 52	9 23	Nagasaki	173	− 5 02	− 5 01	−5.6	−0.8	0.21
2	Ominato	41 15	141 09	9 25	Singapore	193	+ 5 12	+ 5 16	−5.2	−1.0	0.26
3	Yamada Harbor	39 27	141 59	9 28	Yokohama	169	− 1 03	− 0 58	−1.1	−0.1	0.71
4	Tateyama	34 59	139 51	9 19	Yokohama	169	− 0 20	− 0 12	−0.8	0.0	0.77
5	YOKOHAMA (Nishihatoba)	35 26	139 39	9 19	Yokohama	169	0 00	0 00	0.0	0.0	1.00
6	Yenoura	35 03	138 54	9 16	Karachi	253	+ 7 36	+ 7 39	−2.7	−0.1	0.54
7	Shimidzu	35 01	138 31	9 14	Karachi	253	+ 7 38	+ 7 41	−2.8	0.0	0.52
8	Sakushima	34 44	137 02	9 08	Yokohama	169	+ 0 52	+ 1 00	+0.6	+0.2	1.44
9	Yokkaichi	34 57	136 38	9 07	Karachi	253	+ 7 59	+ 8 01	−0.8	+0.2	0.65
10	Toba	34 29	136 50	9 07	Karachi	253	+ 7 53	+ 7 56	−1.8	0.0	0.57
11	Matoya	34 22	136 52	9 07	Karachi	253	+ 7 46	+ 7 48	−2.4	0.0	0.57
12	Hamashima	34 18	136 45	9 07	Karachi	253	+ 8 17	+ 8 19	−2.2	0.0	0.63
13	Osaka Roads, Inland Sea	34 39	135 27	9 02	Karachi	253	+ 9 29	+ 9 39	−2.0	0.0	0.63
14	Shimotsui, Inland Sea	34 26	133 48	8 55	Bombay	249	+12 14	+12 19	−3.0	−0.6	0.73
15	Tomo, Inland Sea	34 23	133 22	8 53	Bombay	249	+12 14	+12 20	−1.7	−0.5	0.87
16	Onomichi, Inland Sea	34 24	133 12	8 53	Bombay	249	+12 02	+12 07	−1.9	−0.5	0.85
17	Simonoseki	33 59	130 53	8 44	Nagasaki	173	+ 0 31	+ 0 34	−1.8	−0.4	0.76
18	Setozaki, Sea of Japan	34 24	131 12	8 45	Key West	119	+ 2 15	+ 2 14	+0.4	+0.2	1.21
19	Hagi, Sea of Japan	34 25	131 24	8 46	Hongkong	189	+ 1 41	+ 1 55	−2.9	−0.3	0.38
20	Yesaki, Sea of Japan	34 39	131 39	8 47	Hongkong	189	+ 2 07	+ 2 21	−3.2	−0.8	0.25
21	Tonoura, Sea of Japan	34 54	132 04	8 48	Hongkong	189	+ 2 39	+ 2 53	−3.6	−0.8	0.19
22	Sagiura, Sea of Japan	35 26	132 41	8 51	Hongkong	189	+ 4 03	+ 4 18	−3.7	−0.9	0.15
23	Yonago, Sea of Japan	35 22	133 18	8 53	Port Townsend	155	−12 01	−11 34	−8.7	−3.9	0.07
24	Shibayama, Sea of Japan	35 39	134 39	8 59	San Francisco Ent.	147	−10 17	− 9 53	−4.2	−1.1	0.13
25	Tsuiyama, Sea of Japan	35 39	134 50	8 59	Aden	257	− 5 32	− 5 36	−3.4	−0.4	0.14
26	Tsuruga Bay, Sea of Japan	35 43	136 00	9 04	Aden	257	− 5 35	− 5 40	−3.4	−0.4	0.14
27	Ao, Sea of Japan	36 53	136 59	9 08	Aden	257	− 5 23	− 5 28	−3.4	−0.4	0.14
28	Naoyedzu, Sea of Japan	37 11	138 14	9 13	Aden	257	− 5 26	− 5 31	−3.6	−0.4	0.12
29	Amaze, Sea of Japan	37 32	138 41	9 15	Aden	257	− 5 41	− 5 45	−3.6	−0.4	0.12
30	Funakawa, Sea of Japan	39 54	139 51	9 19	Aden	257	− 5 14	− 5 19	−3.4	−0.4	0.14
	Shikoku Island.										
31	Urado	33 30	133 35	8 54	Bombay	249	+ 7 21	+ 7 26	−6.3	−0.9	0.39
32	Susaki, Nomi Harbor	33 23	133 17	8 53	Karachi	253	+ 8 03	+ 8 06	−2.0	0.0	0.66
33	Uwajima	33 13	132 33	8 50	Karachi	253	+ 9 28	+ 9 46	−1.6	0.0	0.70
34	Aoshima, Inland Sea	33 44	132 29	8 50	Nagasaki	173	+ 0 33	+ 0 33	+0.2	−0.2	1.06
	Kiushu Island.										
35	Kakaji, Inland Sea	33 40	131 31	8 46	Bombay	249	+10 00	+10 05	−2.6	−0.6	0.77
36	Tasman Bay	31 22	131 09	8 45	Karachi	253	+ 8 01	+ 8 04	−0.4	+0.2	0.90
37	Yamagawa	31 13	130 38	8 43	Karachi	253	+ 9 38	+ 9 41	+1.8	+0.4	1.26
38	Kagoshima	31 35	130 34	8 42	Karachi	253	+ 8 59	+ 9 34	+2.6	+0.4	1.41
39	Kabashima	32 34	129 47	8 39	Shanghai	181	− 0 01	− 1 40	−0.5	+0.5	0.96
40	NAGASAKI	32 44	129 51	8 39	Nagasaki	173	0 00	0 00	0.0	0.0	1.00
41	Matsushima	32 56	129 36	8 38	Nagasaki	173	+ 0 03	+ 0 03	+0.1	+0.1	1.00
42	Tawaranoura	33 07	129 40	8 39	Nagasaki	173	+ 0 13	+ 0 13	−0.1	+0.1	0.98
43	Fukushima, Korea Strait	33 21	129 49	8 39	Nagasaki	173	+ 0 53	+ 0 53	−1.1	−0.1	0.83
44	Kariya, Korea Strait	33 28	129 50	8 39	Singapore	193	+11 48	+11 51	−1.6	−0.6	0.82
	Tsushima Island.										
45	Hirugaura, Korea Strait	34 19	129 16	8 37	Nagasaki	173	+ 1 04	+ 1 05	−1.9	−0.5	0.78
	Riu Kiu or Loo Choo Islands.										
46	Hancock Bay, Amami Ou Sima	28 17	129 10	8 37	Singapore	193	+ 9 57	+ 9 58	−1.6	−0.6	0.82
47	Nafa Kiang, Okinawa Sima	26 12	127 40	8 31	Singapore	193	+ 9 03	+ 9 04	−1.8	−0.6	0.76
	Meiaco Sima Islands.										
48	Miyako Sima	24 48	125 18	8 21	Singapore	193	+10 10	+10 13	−2.6	−0.6	0.65
	Formosa.						*Local time.*				
49	Kelung Harbor	25 08	121 46	8 07	San Diego	143	−12 05	−12 05	−2.0	−0.4	0.58
50	Sauo Bay	24 46	121 50	8 07	San Diego	143	+ 8 30	+ 8 30	+0.2	−0.2	1.13
51	Takau Harbor	22 30	120 16	8 01	San Diego	143	−12 03	−12 02	−1.2	−0.4	0.79
52	Anping	23 00	120 09	8 01	San Diego	143	−12 08	−12 06	−0.5	−0.3	0.94
53	Tamsui Harbor	25 10	121 25	8 06	Singapore	193	+12 05	+12 08	−0.2	−0.4	1.05

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn.)	Range of tide. Spring (Sg.)	Range of tide. Neap (Np.)	Range of tide. Great tropic (Gc.)	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above place of— Predictions.	Mean sea level above place of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	3 37	9 50	4 07a	9 50b	1.3	1.8	0.6	1.4	0.1	0.5	9 45	0.5	0.8	0.8	5.5
2	3 35	9 48	3 04b	9 51b	1.5	2.0	0.8	1.7	0.1	0.7	10 14	0.7	1.0	1.0	5.5
3	4 30	10 45	5 44a	10 40b	2.5	3.4	1.3	3.7	0.3	2.6	.....	2.6	2.1	2.3	4.5
4	5 04	11 17	6 16a	11 12b	2.7	3.7	1.4	4.0	0.3	2.7	10 50	2.7	2.3	2.4	4.0
5	5 25	11 30	4 32b	11 32b	3.5	4.9	1.9	4.9	0.4	2.9	11 38	2.9	2.7	3.0	4.0
6	5 52	12 05	6 41a	11 57b	3.0	4.2	1.5	4.0	0.4	2.1	11 13	2.2	2.2	2.3	4.0
7	5 52	12 04	6 44a	11 56b	2.9	3.9	1.6	3.9	0.4	2.2	11 13	2.3	2.2	2.3	4.0
8	6 06	12 19	7 07a	12 07b	3.9	5.4	2.0	5.6	0.8	3.4	11 19	3.6	3.1	3.3	4.5
9	6 05	12 17	6 44a	12 13b	4.7	6.4	2.6	5.8	0.4	2.7	11 44	2.7	3.3	3.4	4.5
10	5 59	12 12	6 47a	12 06b	3.7	5.0	2.1	4.9	0.4	2.6	11 32	2.7	2.7	2.9	4.5
11	5 52	12 04	6 44a	12 01b	3.2	4.3	1.7	4.2	0.3	2.4	11 42	2.4	2.4	2.5	4.5
12	6 23	0 10	7 24a	0 25a	3.5	4.7	2.0	4.7	0.5	2.5	11 40	2.5	2.5	2.8	4.5
13	7 30	1 25	8 30a	1 40a	3.5	4.7	2.0	4.7	0.5	2.5	.....	2.5	2.6	2.7	4.5
14	11 18	5 05	11 46a	5 42a	6.4	8.4	3.9	8.6	2.4	3.0	14 40	3.9	4.2	4.4	4.5
15	11 16	5 04	11 42a	4 44a	7.6	10.2	4.5	9.7	2.4	3.2	14 44	4.0	4.9	5.0	4.5
16	11 04	4 51	11 31a	4 35a	7.4	9.7	4.7	9.5	2.1	3.3	14 53	3.9	4.8	5.0	4.5
17	8 30	2 20	8 50b	2 13a	4.7	6.7	2.4	5.0	0.6	1.4	.....	1.5	2.9	2.7	4.5
18	10 55	4 42	10 29b	5 40a	1.5	2.0	0.7	2.2	1.2	0.6	21 16	1.4	0.9	1.0	4.5
19	11 16	5 08	10 43b	6 03a	1.3	1.7	0.6	2.0	1.2	0.7	21 20	1.4	0.8	0.9	4.5
20	11 41	5 28	10 57b	6 46a	0.8	1.1	0.5	1.6	1.0	0.6	21 41	1.2	0.7	0.7	4.5
21	12 12	5 59	11 41b	7 21a	0.6	0.8	0.4	1.2	0.8	0.3	22 45	0.9	0.5	0.5	4.5
22	1 08	7 21	0 29a	8 21a	0.5	0.6	0.3	0.9	0.5	0.3	23 19	0.6	0.4	0.4	5.0
23	4 51	11 03	3 02a	11 24a	0.4	0.4	0.2	0.7	0.1	0.6	24 15	0.6	0.4	0.4	5.0
24	2 07	8 20	0 42a	8 45a	0.5	0.6	0.4	0.9	0.2	0.6	21 57	0.7	0.5	0.5	5.0
25	2 28	8 41	0 51a	8 59a	0.5	0.6	0.4	0.9	0.2	0.7	21 53	0.7	0.5	0.5	5.0
26	2 30	8 42	0 52a	8 59a	0.5	0.6	0.4	0.9	0.2	0.7	.....	0.7	0.5	0.5	5.0
27	2 46	8 58	1 11a	9 23a	0.5	0.6	0.4	1.0	0.2	0.8	22 28	0.8	0.5	0.6	5.0
28	2 48	9 00	1 14a	9 28a	0.4	0.6	0.3	0.8	0.2	0.6	22 38	0.7	0.4	0.5	5.0
29	2 36	8 49	1 10a	9 15a	0.4	0.6	0.3	0.8	0.2	0.6	22 28	0.6	0.4	0.5	5.0
30	[3 07]	[9 19]	0 36a	9 51a	[0.5]	[0.7]	[0.4]	1.1	.....	.....	22 42	1.0	0.5	0.7	5.0
31	6 24	0 11	6 59a	− 0 10a	3.4	4.5	2.1	4.7	1.3	2.0	10 14	2.4	2.4	2.5	4.5
32	5 55	12 08	6 42a	12 05b	3.6	5.0	2.0	4.7	0.3	2.5	11 46	2.5	2.6	2.8	4.5
33	7 17	1 20	8 04a	1 17a	3.9	5.3	2.2	5.0	0.3	2.6	.....	2.6	2.8	2.9	4.5
34	8 38	2 25	9 00a	2 15a	6.6	8.9	3.8	7.6	1.2	2.2	12 52	2.5	4.0	4.0	4.5
35	8 55	2 42	9 24a	2 30a	6.7	9.2	3.7	8.2	1.3	3.1	13 22	3.4	4.4	4.5	4.5
36	5 45	11 58	6 25a	11 56b	5.0	6.8	2.8	6.3	0.4	2.9	.....	2.9	3.5	3.7	4.5
37	7 20	1 08	7 54a	1 06a	7.0	9.5	3.9	8.5	0.5	3.4	.....	3.4	4.7	4.9	3.5
38	6 40	1 00	7 12a	0 58a	7.8	10.5	4.4	9.4	0.5	3.6	.....	3.6	5.1	5.3	3.5
39	0 05	6 17	0 08b	5 45a	6.2	8.4	3.5	7.3	2.9	0.4	12 54	3.0	3.2	3.0	4.0
40	7 54	1 41	8 23a	1 33a	6.2	8.4	3.5	7.3	0.8	2.8	12 52	2.9	4.0	4.1	4.0
41	7 56	1 44	8 27a	1 37a	6.2	8.6	3.2	7.2	0.7	2.9	13 04	3.0	4.1	4.1	4.0
42	8 07	1 54	8 40a	1 48a	6.1	8.5	3.0	7.0	0.6	2.9	13 22	3.0	4.0	4.0	4.0
43	8 47	2 34	8 17b	2 36a	5.2	7.0	2.8	5.9	0.3	2.8	15 09	2.3	3.4	3.4	4.0
44	9 23	3 10	8 51b	3 18a	4.6	6.4	2.5	5.4	0.6	2.2	16 27	2.3	3.0	3.1	4.0
45	8 56	2 44	9 15a	2 37a	4.8	6.7	2.4	5.1	0.6	1.3	13 30	1.4	2.8	2.7	4.5
46	7 30	1 15	7 00b	1 29a	4.6	6.2	2.6	5.8	1.0	2.2	.....	2.4	3.0	3.1	3.0
47	6 30	0 15	6 00b	0 29a	4.3	5.8	2.5	5.4	1.0	2.1	.....	2.3	2.9	3.0	2.0
48	7 27	1 14	6 53b	1 30a	3.6	4.9	2.1	4.7	0.9	2.0	15 17	2.2	2.5	2.6	2.0
49	10 15	4 03	9 31b	4 23a	2.2	3.0	1.3	3.0	0.7	1.5	.....	1.7	1.7	1.7	1.5
50	6 00	12 13	5 26b	12 29b	4.3	5.8	2.5	5.4	1.0	2.1	.....	2.3	2.9	3.0	1.0
51	9 45	3 32	9 07b	3 49a	3.0	4.0	1.7	3.9	0.8	1.8	.....	2.0	2.1	2.2	0.5
52	9 50	3 38	9 15b	3 54a	3.6	4.9	2.1	4.6	0.9	1.9	.....	2.2	2.5	2.5	0.5
53	10 00	3 47	9 33b	3 59a	5.9	8.0	3.4	7.2	1.2	2.5	.....	2.8	3.8	3.9	1.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	ASIA (EAST COAST)—Continued.										
	KOREA.	North.	East.				Local time.		Mean Lower Low Water.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet	
1	Yung-hing Bay	39 13	127 18	8 29	San Diego	143	− 4 46	− 4 47	− 2.5	−0.5	0.47
2	Tsau-liang-hai or Chosan	35 07	129 03	8 36	San Diego	143	+10 05	+10 05	+ 1.2	−0.2	1.36
3	Port Hamilton	34 01	127 17	8 29	Calcutta	237	− 4 16	− 5 45	− 1.7	−1.3	0.95
4	Chemulpo (Inner Harbor)	37 29	126 36	8 26	Calcutta	237	+ 3 23	+ 1 54	+11.9	−1.1	2.60
5	Seoul	37 30	127 00	8 28	Calcutta	237	− 4 01	− 4 07	− 4.7	−1.3	0.58
	CHINA.										
6	Port Arthur	38 50	121 16	8 05	Tientsin Entrance	177	− 5 16	− 5 54	− 0.8	0.0	0.89
7	Niuchwang or Newchwang	40 35	122 00	8 08	Tientsin Entrance	177	+ 1 34	+ 1 03	+ 3.2	+0.4	1.40
8	TIENTSIN ENTR., Taku Light Ship	38 55	117 50	7 51	Tientsin Entrance	177	0 00	0 00	0.0	0.0	1.00
9	Tientsin	39 09	117 11	7 49	Tientsin Entrance	177	+ 3 54	+ 3 38	− 3.8	−0.4	0.53
10	Hoangho or Yellow River Entr	37 54	118 34	7 54	Tientsin Entrance	177	+ 1 04	+ 0 26	+ 2.0	+0.2	1.24
11	Chifu	37 34	121 31	8 06	Tientsin Entrance	177	− 4 56	− 5 34	− 0.2	0.0	0.96
12	Wei-hai-Wei	37 29	122 13	8 09	Tientsin Entrance	177	− 6 02	− 6 40	+ 0.6	+0.2	1.07
13	Shuntung Promontory	37 24	122 42	8 11	Tientsin Entrance	177	+ 1 03	+ 0 24	− 1.5	−0.1	0.81
14	Sang-kau Bay	37 08	122 27	8 10	Shanghai	181	+ 0 29	− 1 13	− 1.6	0.0	0.76
15	Kyau-chau Harbor	36 00	120 20	8 01	Shanghai	181	+ 4 33	+ 2 52	+ 1.7	−0.1	1.25
16	SHANGHAI, Wusung Bar	31 21	121 30	8 06	Shanghai	181	0 00	0 00	0.0	0.0	1.00
17	Nanking, Yangtze River	32 10	118 55	7 56	Shanghai	181	− 1 37	− 3 18	− 4.0	0.0	0.43
18	Hang Chu Bay	30 14	120 14	8 01	Shanghai	181	− 0 57	− 2 38	+ 4.2	+0.6	1.50
19	Ning-Po, Yung River	29 57	121 47	8 07	Shanghai	181	+ 0 47	− 0 55	− 0.2	0.0	0.97
20	Taichow Islands	28 24	121 52	8 07	Amoy	185	− 3 40	− 3 36	− 1.2	0.0	0.91
21	Namquam or Nam Kwan Harbor	27 12	120 23	8 02	Amoy	185	− 2 40	− 2 35	+ 1.4	+0.2	1.10
22	Min River Entrance	26 02	119 40	7 59	Amoy	185	− 2 45	− 2 40	+ 2.9	+0.1	1.22
23	Fuchau or Foo-chow, Min River	26 03	119 24	7 58	Amoy	185	+ 0 25	+ 0 47	+ 3.2	+0.2	1.24
24	Hungwha Sound	25 24	119 14	7 57	Amoy	185	− 1 15	− 1 11	+ 6.4	+0.2	1.48
25	Meichen Sound	25 08	119 00	7 56	Amoy	185	+ 0 15	+ 0 19	+ 1.1	+0.1	1.08
26	Hui-i-tau Bay	24 36	118 26	7 54	Amoy	185	0 00	+ 0 04	+ 0.5	+0.1	1.03
27	AMOY, inner harbor	24 23	118 10	7 53	Amoy	185	0 00	0 00	0.0	0.0	1.00
28	Tongsang Harbor	23 54	117 31	7 50	Amoy	185	− 1 10	− 1 05	− 3.1	−0.1	0.77
29	Swatow	23 20	116 40	7 47	Hongkong	189	− 7 30	+ 3 43	0.0	+0.2	0.91
30	Honghai Bay	22 50	115 11	7 41	Hongkong	189	+ 0 27	+ 0 41	+ 1.7	+0.1	1.48
31	HONGKONG	22 17	114 10	7 37	Hongkong	189	0 00	0 00	0.	0.0	1.00
32	Whampoa	23 05	113 26	7 34	Hongkong	189	+ 3 50	+ 4 38	+ 1.2	−0.4	1.45
33	Canton	23 08	113 16	7 33	Hongkong	189	+ 5 02	+ 5 04	− 0.3	−0.9	1.18
34	Macao	22 14	113 34	7 34	Hongkong	189	+ 0 27	+ 0 42	+ 1.6	+0.2	1.45
35	Hui-ling-san Harbor	21 40	111 46	7 27	Hongkong	189	− 1 03	− 0 49	+ 2.6	+0.2	1.69
36	Tien pak Harbor	21 28	111 13	7 25	Hongkong	189	+ 2 27	+ 2 41	+ 3.2	+0.2	1.87
37	Nauchau Passage	21 00	110 38	7 23	Hongkong	189	+ 0 47	+ 1 01	+ 6.4	+0.6	2.75
38	Hoi Hau, Hainan Island	20 04	110 05	7 20	Hongkong	189	− 2 22	− 2 07	+ 3.1	+0.3	1.84
39	Yulinkan Bay, Hainan Island	18 15	109 33	7 18	Hongkong	189	− 0 27	− 0 12	− 1.8	−0.4	0.54
40	Pakhoi	21 27	109 02	7 16	Hongkong	189	+ 8 03	+ 8 17	+ 7.8	+0.6	3.20
	COCHIN CHINA.										
41	Kua Kam	20 45	106 47	7 07	Hongkong	189	− 0 22	− 0 07	− 0.1	−0.1	1.00
42	Hue River Entrance	16 35	107 40	7 11	Hongkong	189	+ 0 08	+ 0 20	− 1.8	−0.4	0.57
43	Hon Kohe Bay	12 40	109 11	7 17	Singapore	193	−11 24	−11 20	− 2.2	−0.2	0.66
44	Saigon	10 50	106 42	7 07	Singapore	193	− 5 18	− 5 07	+ 1.8	+0.2	1.29
	SIAM.										
45	Chentabun River Entrance	12 28	102 07	6 48	Singapore	193	− 0 18	− 0 12	− 2.5	−0.3	0.60
46	Paknam, Menam River	13 30	100 38	6 43	Singapore	193	− 5 08	− 5 02	+ 0.6	0.0	1.08
47	Bangkok, Menam River	13 40	100 32	6 42	Singapore	193	− 2 18	− 2 02	− 0.2	0.0	0.96
	MALAY PENINSULA.										
	East coast.										
48	Lakon Roads	8 33	100 05	6 40	Singapore	193	− 0 13	− 0 09	− 2.6	−0.2	0.59
49	Singora	7 13	100 40	6 43	Singapore	193	− 1 58	− 1 54	− 4.0	−0.6	0.37
50	Tringano River	5 25	103 06	6 52	Singapore	193	− 2 18	− 2 14	− 1.4	−0.2	0.76
51	SINGAPORE	1 20	103 51	6 55	Singapore	193	0 00	0 00	0.0	0.0	1.00
	West coast.										
52	Malakka Road	2 12	102 12	6 49	Singapore	193	− 2 58	− 2 54	+ 2.4	+0.2	1.33
53	One Fathom Bank	2 52	100 59	6 44	Singapore	193	− 4 28	− 4 27	+ 5.6	+0.4	1.90
54	Perak River Entrance	4 05	100 44	6 43	Singapore	193	− 7 13	− 7 10	+ 0.9	+0.1	1.13
55	Georgetown, Penang Island	5 24	100 20	6 41	Singapore	193	−10 53	−10 47	+ 1.0	+0.2	1.15
56	Salang or Junkseylon Island	8 00	98 21	6 33	Singapore	193	−12 08	−12 24	+ 1.1	+0.1	1.17

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	5 10	11 22	4 23a	11 44b	1.8	2.5	1.0	2.6	0.7	1.4	.....	1.5	1.4	1.4	5.0
2	7 35	1 23	7 07b	1 36a	5.2	7.0	3.0	6.4	1.1	2.3	.....	2.6	3.4	3.5	4.5
3	9 05	2 52	9 12b	2 40a	7.7	10.5	4.2	7.2	1.4	0.7	.....	1.6	4.1	3.5	4.5
4	4 19	10 31	4 23b	10 24b	21.1	28.8	11.6	20.3	2.3	1.2	18 30	2.6	11.0	9.9	5.0
5	9 20	3 30	9 28a	3 15b	4.7	6.5	2.6	4.3	1.1	0.6	.....	1.2	2.6	2.0	5.0
6	10 05	3 53	9 26a	3 55b	6.5	7.5	5.5	8.8	0.2	4.4	.....	4.4	4.8	5.4	4.0
7	4 30	10 50	3 59b	10 52b	10.2	11.7	8.7	13.1	0.3	5.5	.....	5.5	7.0	7.7	4.5
8	2 56	9 47	2 20b	9 49b	7.3	8.4	6.2	9.8	0.2	4.6	9 41	4.7	5.2	5.9	3.5
9	6 50	1 00	6 00b	1 01a	3.9	4.5	3.3	5.7	0.2	3.4	.....	3.4	3.1	3.6	3.5
10	4 00	10 13	3 28b	10 15b	9.1	10.5	7.7	11.8	0.3	5.2	.....	5.2	6.3	7.0	3.0
11	10 25	4 13	9 47a	4 15b	7.0	8.1	6.0	9.4	0.2	4.5	.....	4.6	5.1	5.7	4.0
12	9 20	3 08	8 45a	3 10b	7.8	9.0	6.6	10.4	0.3	4.8	.....	4.8	5.6	6.2	4.0
13	4 00	10 12	3 20a	10 14a	5.9	6.8	5.0	8.1	0.2	4.2	.....	4.2	4.4	5.0	4.0
14	0 45	6 57	0 38b	7 21b	5.4	6.9	3.6	5.8	1.9	0.6	.....	2.0	2.4	2.6	4.0
15	4 50	11 03	4 45b	11 21b	8.9	11.4	6.0	9.4	2.4	0.7	.....	2.5	4.0	4.3	3.5
16	0 12	8 06	0 06b	8 27b	7.1	9.1	4.8	7.6	2.2	0.7	12 11	2.3	3.2	3.4	2.5
17	10 50	4 38	10 41a	5 10b	3.1	4.0	2.1	3.4	1.4	0.4	.....	1.5	1.2	1.5	2.0
18	11 35	5 23	11 30a	5 40b	10.7	13.7	7.2	11.2	2.6	0.8	.....	2.8	5.6	5.2	2.0
19	1 00	7 12	0 54b	7 33b	6.9	8.8	4.6	7.3	2.1	0.7	.....	2.2	3.1	3.3	2.5
20	8 50	2 37	9 05a	2 35a	11.6	14.1	8.9	12.9	0.4	3.0	.....	2.9	6.8	7.1	2.0
21	9 50	3 38	10 04a	3 36a	14.1	17.2	10.9	15.5	0.4	3.3	.....	3.2	8.2	8.4	1.5
22	9 45	3 33	9 58a	3 31a	15.6	19.0	12.0	17.0	0.5	3.4	.....	3.4	8.9	9.2	1.0
23	0 30	7 00	0 43b	6 58a	15.8	19.3	12.2	17.3	0.5	3.5	.....	3.4	9.1	9.4	1.0
24	11 15	5 02	11 27a	5 01a	18.9	23.0	14.6	20.5	0.5	3.8	.....	3.7	10.7	11.0	1.0
25	0 20	6 32	0 34b	6 30a	13.8	16.9	10.6	15.1	0.4	3.2	.....	3.2	8.0	8.2	1.0
26	0 05	6 17	0 19b	6 15a	13.2	16.1	10.2	14.5	0.4	3.2	.....	3.1	7.7	7.9	0.5
27	0 05	6 13	0 19b	6 11a	12.8	15.5	9.9	14.2	0.4	3.1	17 59	3.1	7.4	7.7	0.5
28	11 20	5 08	11 37a	5 06a	9.8	12.0	7.6	10.9	0.4	2.7	.....	2.7	5.8	6.0	0.5
29	1 53	6 39	2 59b	6 36a	3.0	3.5	2.5	5.3	1.4	3.5	18 40	3.5	2.8	3.1	0.5
30	9 50	3 37	9 13b	4 23a	4.9	6.4	3.0	8.2	3.7	3.1	.....	5.1	3.6	4.0	0.5
															East.
31	9 23	2 56	8 31b	3 51a	3.3	4.4	2.1	6.2	3.0	2.8	18 32	4.3	2.7	3.1	0.5
32	0 48	7 34	0 17a	8 07a	4.8	6.0	3.3	7.1	3.0	2.9	22 42	3.8	3.1	3.5	0.5
33	2 00	8 00	1 19a	8 50a	3.9	5.1	2.4	6.8	3.3	2.8	.....	4.4	2.1	3.3	0.5
34	9 50	3 38	9 13b	4 24a	4.8	6.3	3.0	8.2	3.7	3.1	.....	5.0	3.6	3.9	0.5
35	8 20	2 07	7 45b	2 50a	5.6	7.4	3.5	9.2	4.0	3.4	.....	5.5	4.1	4.5	1.0
36	11 50	5 37	11 17b	6 17a	6.2	8.2	3.8	9.9	4.2	3.5	.....	5.7	4.3	4.8	1.0
37	10 10	3 57	9 42b	4 31a	9.1	12.0	5.6	13.6	5.1	4.3	.....	7.0	6.2	6.6	1.5
38	7 00	0 48	6 27b	1 29a	6.1	8.0	3.8	9.8	4.2	3.5	.....	5.7	4.4	4.8	1.5
39	8 55	2 43	7 53b	3 59a	1.8	2.3	1.1	3.8	2.3	1.9	.....	3.1	1.6	1.8	2.0
40	5 00	11 12	4 34a	11 43a	10.6	14.0	6.6	15.4	5.5	4.6	.....	7.5	6.9	7.6	1.5
41	9 00	2 48	8 14b	3 44a	3.3	4.3	2.1	6.0	3.1	2.6	.....	4.2	2.6	2.9	2.0
42	9 30	3 15	8 31b	4 27a	1.9	2.5	1.2	3.9	2.3	1.9	.....	3.1	1.6	1.8	2.5
43	11 20	5 08	10 27b	5 22a	3.7	5.0	2.2	5.2	0.9	3.0	.....	3.2	2.9	3.1	2.5
44	5 00	11 20	4 23a	11 30a	7.3	9.8	4.2	9.4	1.2	4.2	.....	4.4	5.1	5.4	2.5
45	10 00	3 50	9 06a	4 04b	3.4	4.5	2.1	4.8	0.8	2.9	.....	3.0	2.7	3.9	3.0
46	5 10	11 25	4 29a	11 36a	6.1	8.2	3.6	8.1	1.1	3.9	.....	4.1	4.4	4.6	3.0
47	8 00	2 00	7 17a	2 11b	5.4	7.3	3.1	7.2	1.1	3.6	.....	3.8	4.0	4.1	3.0
48	10 05	3 53	9 10a	4 08b	3.3	4.5	1.9	4.7	0.8	2.9	.....	3.0	2.7	2.7	3.0
49	8 20	2 08	7 10a	2 26b	2.1	2.8	1.2	3.3	0.7	2.3	.....	2.4	1.8	1.9	2.5
50	8 00	1 48	7 12a	2 01b	4.3	5.8	2.5	6.0	1.0	3.3	.....	3.4	3.3	3.5	2.5
51	10 18	4 02	9 36a	4 13b	5.6	7.6	3.2	7.5	1.1	3.7	5 14	3.9	4.1	4.3	2.0
52	7 20	1 08	6 44a	1 17b	7.8	10.5	4.5	10.0	1.3	4.4	.....	4.6	5.4	5.7	2.0
53	5 50	12 00	5 19a	12 08a	10.7	14.4	6.2	13.3	1.5	5.1	.....	5.4	7.1	7.4	2.0
54	3 05	9 17	2 26a	9 27a	6.4	8.6	3.7	8.4	1.2	4.0	.....	4.1	4.6	4.8	2.0
55	11 50	5 40	11 11b	5 50a	6.5	8.8	3.8	8.5	1.2	4.0	.....	4.2	4.7	4.9	2.5
56	10 00	4 00	9 22b	4 10a	6.6	8.9	3.8	8.6	1.2	4.0	.....	4.2	4.7	4.9	2.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	MALAY OR EASTERN ARCHIPELAGO.										
	EAST INDIES.										
	Malakka Strait, Sumatra.	*North.*	*East.*				*Local time.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Acheh Head	5 33	95 18	6 21	Singapore	193	+12 08	+12 08	−2.0	−0.2	0.69
2	Diamond Point	5 16	97 30	6 30	Singapore	193	−10 52	−10 52	+0.9	+0.1	1.13
3	Deli River Entrance	3 45	98 43	6 35	Singapore	193	− 7 29	− 7 29	+0.9	0.0	1.12
4	Siak River Entrance	1 20	102 14	6 49	Singapore	193	− 1 28	− 1 38	+3.1	+0.3	1.49
5	Garras Light, Rhio Strait	0 45	104 21	6 57	Singapore	193	− 0 38	− 0 48	−0.4	0.0	0.94
	Sumatra, east coast, etc.	*South.*									
6	Linga, Linga Island	0 14	104 34	6 58	Singapore	193	− 4 18	− 4 14	+3.2	+0.2	1.51
7	Tanjong Kalean, Banka Strait	1 58	105 07	7 00	Galveston	123	+12 26	+10 56	+7.5	−1.3	6.87
8	Nangka Island, Banka Strait	2 24	105 47	7 03	Galveston	123	+13 03	+13 11	+6.7	−1.1	6.20
9	Banka Point, Banka Strait	2 53	106 08	7 05	Galveston	123	+12 01	+11 57	+6.0	−1.0	5.60
10	Tobo Ali Bay, Banka Strait	3 00	106 27	7 06	Galveston	123	− 9 35	− 9 22	+7.5	−1.1	6.73
11	Clifton Shoal	4 54	106 03	7 04	Galveston	123	− 8 06	− 9 17	+2.4	−0.6	3.00
	Sunda Strait.										
12	Java Fourth Point	6 04	105 53	7 04	Sitka	159	+ 6 30	+ 6 30	−9.1	−3.1	0.22
13	Krakatoa Island	6 09	105 25	7 02	Sitka	159	+ 6 09	+ 6 09	−8.2	−3.0	0.34
14	Kalang Bayang Harbor, Sumatra	5 44	105 02	7 00	Sitka	159	+ 5 29	+ 5 32	−9.4	−3.0	0.18
15	Java First Point	6 44	105 11	7 01	Sitka	159	+ 4 49	+ 4 49	−9.1	−3.1	0.22
	Sumatra, southwest coast.										
16	Flat Cape	5 56	104 33	6 58	Key West	119	− 3 12	− 3 13	+0.7	+0.1	1.49
17	Benkulen	3 41	102 13	6 49	Key West	119	− 3 02	− 3 02	+1.7	+0.1	2.32
18	Padang	0 56	100 23	6 42	Key West	119	− 3 16	− 3 16	+2.7	+0.1	3.14
		North.									
19	Ayer Bangies	0 12	99 23	6 38	Key West	119	− 3 22	− 3 22	+0.8	0.0	1.59
20	Tapanuli Bay	1 35	98 50	6 35	Key West	119	− 3 01	− 3 02	+2.8	+0.2	3.23
	Java, etc.	*South.*									
21	BATAVIA	6 06	106 50	7 07	Batavia	197	0 00	0 00	0.0	0.0	1.00
22	Samarang	6 57	110 25	7 22	Batavia	197	− 0 23	− 0 02	+1.2	−0.2	1.60
23	Panka Point	6 55	112 34	7 30	Batavia	197	+10 26	+10 57	+2.2	−0.4	2.00
24	Arisbaya, Surabaya Strait	6 56	112 50	7 31	Batavia	197	+ 9 56	+10 16	+2.2	−0.4	2.04
25	Sembilangan, Surabaya Strait	7 04	112 40	7 31	Batavia	197	+12 59	+ 7 25	+2.2	−0.4	2.00
26	Surabaya, Surabaya Strait	7 12	112 44	7 31	Hongkong	189	+ 2 44	+ 2 58	+0.6	+0.4	1.09
27	Gading, Madura Strait	7 11	112 54	7 32	Aden	257	− 8 31	− 8 35	+1.8	+0.8	1.25
28	Karang Kleta, Madura Strait	7 20	112 48	7 31	Aden	257	− 8 37	− 8 42	+1.8	+0.8	1.25
29	Pasuruan, Madura Strait	7 38	112 55	7 32	Aden	257	− 8 39	− 8 44	+1.6	+0.8	1.25
30	Sapoedie Island, Madura Strait	7 05	114 16	7 37	Batavia	197	+12 34	+ 8 45	+2.6	+0.2	0.70
31	Meinderts Reef, Madura Strait	7 40	114 26	7 38	Batavia	197	+12 21	+ 8 20	+2.0	+0.2	0.63
32	Banjoewangi, Baly Strait	8 13	114 23	7 38	Sydney	221	−11 06	−11 08	+1.8	−0.4	1.63
33	Pangul, Java, south coast	8 16	111 26	7 26	Sydney	221	−11 51	−11 50	+0.4	−0.4	1.24
34	Tylatiap, Java, south coast	7 45	109 04	7 16	Sydney	221	+12 17	+12 18	−0.2	−0.4	1.09
35	Wynkoops Bay, Java, south coast	6 55	106 30	7 06	Sydney	221	+ 8 35	+ 8 35	+0.1	−0.3	1.13
	Baly.										
36	Tebunkus Road	8 11	115 00	7 40	Sydney	221	+ 8 39	+ 8 39	+0.6	−0.4	1.27
37	Badong Bay	8 42	115 07	7 40	Sydney	221	−10 16	−10 15	+2.4	−0.4	1.83
	Lombok.										
38	Ampenam Bay	8 35	116 04	7 44	Sydney	221	+11 34	+11 34	+0.4	−0.4	1.21
39	Piju Bay	8 49	116 31	7 46	Sydney	221	− 9 37	− 9 36	+4.0	−0.4	2.28
	Sumbawa.										
40	Bima Bay	8 25	118 42	7 55	Sydney	221	− 8 42	− 8 42	+0.3	−0.4	1.21
41	Saple Bay	8 30	119 01	7 56	Sydney	221	− 7 52	− 7 51	+8.0	−0.4	2.01
	Sumba or Sandalwood Island.										
42	Palmedo Road	9 22	119 45	7 59	Sydney	221	− 9 07	− 9 06	+6.2	−0.4	2.96
43	Nangamessie Harbor	9 34	120 15	8 01	Sydney	221	− 9 47	− 9 47	+8.0	−0.4	3.46
	Flores or Mangarei Island.										
44	Alligator Bay	8 45	119 50	7 59	Sydney	221	− 8 47	− 8 46	+0.4	−0.4	1.21
45	Adenara, Adenara Island	8 14	123 07	8 12	Sydney	221	−10 07	−10 06	+1.7	−0.3	1.60
	Timor.										
46	Koepang	10 10	123 35	8 14	Sydney	221	−10 17	−10 17	+2.2	−0.4	1.78
47	Dilhi	8 34	125 48	8 23	Sydney	221	− 7 58	− 7 57	+0.4	−0.4	1.21
48	Cyrus Harbor, Rotti Island	10 51	123 05	8 12	Sydney	221	− 9 17	− 9 17	+0.2	−0.4	1.15

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	10 00	3 44	9 10b	3 57a	3.9	5.2	2.3	5.5	0.9	3.1	.....	3.2	3.0	3.2	2.0
2	11 50	5 34	11 11b	5 45a	6.4	8.7	3.7	8.4	1.2	4.0	.....	4.2	4.6	4.8	2.0
3	2 48	8 57	2 08a	9 07a	6.3	8.5	3.7	8.3	1.2	3.9	.....	4.1	4.5	4.7	2.0
4	8 50	2 24	8 16a	2 33b	8.4	11.3	4.9	10.7	1.3	4.6	.....	4.8	5.8	6.1	2.0
5	9 40	3 14	8 54a	3 26b	5.3	7.1	3.1	7.1	1.1	3.6	.....	3.8	3.9	4.1	2.0
6	6 00	12 13	5 26a	12 22a	8.5	11.5	4.9	10.8	1.3	4.6	.....	4.8	5.8	6.1	2.0
7	[6 25]	[0 12]	7 45a	— 3 01a	[4.1]	.....	.....	10.3	.....	.....	8 37	9.9	3.7	5.1	2.0
8	[6 50]	[0 38]	8 22a	— 0 46a	[3.7]	.....	.....	9.3	.....	.....	.....	8.2	3.4	4.6	2.0
9	[5 42]	[11 54]	7 20a	10 25b	[3.4]	.....	.....	8.4	.....	.....	8 54	7.8	3.1	4.2	2.0
10	[9 06]	[2 52]	10 34a	1 31a	[4.0]	.....	.....	10.1	.....	.....	.....	8.6	3.8	5.2	2.0
11	[9 50]	[3 37]	12 03a	1 36a	[1.8]	.....	.....	4.5	.....	.....	.....	5.7	1.5	2.2	1.5
12	7 11	0 58	6 46b	1 09a	1.7	2.4	0.7	1.8	0.3	0.6	15 01	0.6	1.0	1.0	1.5
13	6 50	0 37	6 25b	0 48a	2.6	3.8	1.1	2.7	0.3	0.7	.....	0.8	1.5	1.5	1.0
14	6 10	0 00	5 42b	0 12a	1.4	2.0	0.6	1.5	0.3	0.5	.....	0.6	0.9	0.8	1.5
15	5 30	11 42	5 07b	11 52b	1.7	2.5	0.7	1.8	0.3	0.6	.....	0.6	1.0	1.0	1.0
16	5 40	11 52	5 38b	12 41b	1.8	2.6	0.7	2.5	1.3	0.2	.....	1.3	1.0	0.9	1.0
17	5 50	12 03	5 48b	12 42b	2.8	4.0	1.1	3.7	1.6	0.3	.....	1.6	1.5	1.4	1.5
18	5 35	11 48	5 34b	12 20b	3.8	5.5	1.4	4.8	1.8	0.3	.....	1.8	2.0	1.9	1.5
19	5 29	11 42	5 27b	12 28b	1.9	2.8	0.7	2.6	1.3	0.2	17 33	1.3	1.0	1.0	1.5
20	5 50	12 02	5 49b	12 35b	3.9	5.7	1.5	4.9	1.9	0.3	.....	1.9	2.1	2.0	2.0
21	[11 58]	[5 46]	9 56a	9 58b	[0.5]	[0.7]	[0.1]	2.5	.....	.....	9 04	2.6	0.8	1.2	1.5
22	[6 00]	[12 13]	9 23a	9 56b	[0.8]	.....	.....	4.0	.....	.....	9 35	3.8	1.3	2.0	1.5
23	[4 35]	[10 48]	7 58b	8 31a	[1.0]	.....	.....	5.0	.....	.....	20 42	5.0	1.7	2.5	1.5
24	[3 35]	[9 48]	7 28b	7 50a	[1.0]	.....	.....	5.1	.....	.....	20 07	5.1	1.7	2.5	1.5
25	[12 09]	[5 56]	10 31b	4 59a	[1.0]	.....	.....	5.0	.....	.....	20 13	4.7	1.7	2.5	1.5
26	12 07	5 54	10 54b	6 42a	3.6	4.9	1.7	6.5	2.6	3.8	20 35	5.0	3.2	3.4	1.5
27	11 52	5 40	10 50b	6 07a	4.5	6.2	2.3	7.2	2.1	4.3	19 44	4.8	3.7	4.0	1.5
28	11 46	5 33	10 49b	6 02a	4.5	6.2	2.4	7.5	2.3	4.2	19 48	4.8	3.7	4.1	1.5
29	11 44	5 31	10 46b	6 02a	4.5	6.2	2.3	7.2	2.3	4.0	19 50	4.7	3.6	4.0	1.5
30	[11 38]	[5 25]	10 06b	6 19a	[2.3]	[2.9]	[1.6]	5.0	.....	.....	19 58	4.2	2.2	2.7	1.5
31	[11 17]	[5 04]	9 53b	5 54a	[2.1]	[2.6]	[1.5]	4.4	.....	.....	19 38	3.9	1.9	2.4	1.5
32	10 00	3 45	9 45b	4 13a	5.5	7.8	2.6	6.6	2.2	1.3	19 15	2.6	2.8	3.1	1.5
33	9 15	3 03	8 59b	3 34a	4.2	5.9	2.0	5.1	1.9	1.1	.....	2.2	2.1	2.4	1.5
34	8 33	2 21	8 16b	2 54a	3.7	5.2	1.8	4.5	1.8	1.0	18 44	2.1	1.8	2.1	1.5
35	4 50	11 02	4 33b	11 34b	3.8	5.3	1.8	4.7	1.8	1.1	.....	2.1	2.0	2.2	1.0
36	4 55	11 07	4 39b	11 38b	4.3	6.0	2.1	5.2	1.9	1.1	.....	2.3	2.2	2.4	1.5
37	10 50	4 38	10 36b	5 04a	6.2	8.7	3.0	7.3	2.3	1.3	.....	2.7	3.1	3.4	1.5
38	7 50	1 37	7 33b	2 09a	4.1	5.8	2.0	5.0	1.9	1.1	.....	2.2	2.1	2.3	1.5
39	11 30	5 18	11 18b	5 41a	7.7	10.9	3.7	8.9	2.6	1.5	.....	3.0	3.9	4.2	1.5
40	0 00	6 12	— 0 17a	6 44a	4.1	5.7	2.0	5.0	1.9	1.1	.....	2.2	2.1	2.3	1.5
41	0 50	7 03	0 37a	7 27a	6.8	9.6	3.3	8.0	2.5	1.4	.....	2.8	3.4	3.7	1.5
42	12 00	5 48	11 49b	6 08a	10.0	14.2	4.8	11.4	3.0	1.7	.....	3.4	5.0	5.4	1.5
43	11 20	5 07	11 10b	5 26a	11.7	16.5	5.6	13.2	3.2	1.9	.....	3.7	5.9	6.3	2.0
44	12 20	6 08	12 03b	6 40a	4.1	5.7	2.0	5.0	1.9	1.1	.....	2.2	2.1	2.3	1.5
45	11 00	4 48	10 46b	5 15a	5.4	7.6	2.6	6.5	2.2	1.3	.....	2.5	2.8	3.0	2.0
46	10 50	4 37	10 36b	5 02a	6.0	8.5	2.9	7.1	2.3	1.3	.....	2.7	3.0	3.3	2.0
47	0 45	6 58	0 28a	7 30a	4.1	5.7	2.0	5.0	1.9	1.1	.....	2.2	2.1	2.3	2.0
48	11 50	5 37	11 33b	6 09a	3.9	5.5	1.9	4.8	1.9	1.1	.....	2.1	2.0	2.2	2.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	MALAY OR EASTERN ARCHIPELAGO—Continued.										
	EAST INDIES—continued.										
	Gasper Strait.	*South.*	*East.*				*Local time.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Langwas Island, Billiton Island	2 32	107 37	7 10	Batavia	197	− 2 11	− 2 09	+3.4	−0.6	2.64
2	Shoalwater Island	3 19	107 13	7 09	Batavia	197	− 1 46	− 1 48	+2.6	−0.4	2.24
	Carimata Strait.										
3	Montaran Islands	2 35	108 44	7 15	Batavia	197	+ 5 36	+ 5 35	+2.0	−0.4	1.96
4	Kumpul Island	2 43	110 04	7 20	Batavia	197	+ 6 26	+ 6 24	+4.2	−0.8	3.00
	Borneo.										
5	Bajor, Koetei River Entrance	0 43	117 33	7 50	Galveston	123	+ 0 59	+ 2 13	+4.8	−0.8	4.67
6	Kotta Baroe Reef	3 12	116 40	7 47	Galveston	123	− 1 15	− 0 01	+4.0	+1.0	3.07
7	Jelai River Entrance	2 53	110 45	7 23	Singapore	193	+ 1 11	+ 1 15	−0.3	−0.1	0.96
8	Padang Tikar River	0 38	109 15	7 17	Singapore	193	− 3 19	− 3 16	−0.4	0.0	0.94
		North.									
9	Burong Islands	0 47	108 42	7 15	Singapore	193	− 5 44	− 5 41	−0.7	−0.1	0.89
10	Po Point, Sarawak River Entrance	1 43	110 31	7 22	Singapore	193	− 6 19	− 6 16	+1.2	0.0	1.19
11	Sarawak, Sarawak River	1 32	110 35	7 22	Singapore	193	− 4 59	− 4 53	+5.2	+0.4	1.84
12	Victoria Harbor, Labuan Island	5 20	115 12	7 41	Singapore	193	− 0 45	− 0 41	−1.6	−0.2	0.73
13	Kudat Harbor	6 53	116 51	7 47	Singapore	193	− 0 30	− 0 26	−0.8	0.0	0.87
14	Sandakan Harbor	5 50	118 07	7 52	Singapore	193	+ 1 40	+ 1 46	−2.1	−0.3	0.67
	Celebes.										
15	Manado Bay	1 30	124 46	8 19	Port Townsend	155	+ 1 27	+ 1 57	−4.0	−2.6	0.71
16	Likupang River, Banka Strait	1 41	125 02	8 20	Port Townsend	155	+ 2 02	+ 2 30	−1.8	−2.2	1.07
		South.									
17	Makassar	5 09	119 22	7 57	Port Townsend	155	+ 0 08	+ 0 38	−4.4	−2.6	0.65
18	Brill or Spectacle Reef	6 05	118 54	7 56	Port Townsend	155	− 3 59	− 3 31	−6.7	−3.1	0.31
	Molucca Islands.										
19	Cajeli Bay, Bouro Island	3 19	127 04	8 28	Port Townsend	155	− 3 13	− 2 46	−4.0	−2.6	0.71
20	Amboina Bay, Amboina Island	3 41	128 07	8 32	Port Townsend	155	− 2 13	− 1 46	−0.8	−2.0	1.25
21	Wahai Bay, Ceram Island	2 46	129 31	8 38	Port Townsend	155	+ 1 16	+ 1 15	−5.0	−2.8	0.56
22	Banda Harbor, Banda Islands	4 33	129 53	8 40	Port Townsend	155	− 2 49	− 2 22	+0.7	−1.9	1.49
23	Dobbo Harbor, Arru Islands	5 45	134 16	8 57	Port Townsend	155	− 2 14	− 1 47	−2.5	−2.3	0.96
24	Sannana Bay, Xulla Besi Island	2 03	125 57	8 24	Port Townsend	155	− 2 33	− 2 08	+0.6	−1.8	1.48
25	Gebi, Fow Island	0 05	129 30	8 38	Port Townsend	155	+ 0 26	+ 0 53	−3.6	−2.4	0.79
		North.									
26	Ternate	0 50	127 20	8 29	Port Townsend	155	+ 0 27	+ 0 52	−4.4	−2.6	0.65
27	Manganitu Bay, Sangir Island	3 30	125 28	8 22	Port Townsend	155	+ 0 17	+ 0 42	−2.4	−2.2	0.98
	PHILIPPINE ISLANDS.										
	Sulu Islands.						*Time meridian, 120° East.*				
28	Tataan Harbor, Tawi-tawi Island	5 13	119 56	8 00	Manila	201	− 2 33	− 3 01	+1.4	−0.4	1.40
29	Port Siassi, Siassi Island	5 32	120 51	8 03	Sydney	221	+ 9 39	+ 9 40	+4.2	+0.2	2.21
30	Jolo, Jolo Island	6 04	120 59	8 04	Manila	201	− 2 12	− 2 50	+0.2	0.0	1.06
	Mindanao Island.										
31	Davao or Vergara, Gulf of Davao	7 02	125 35	8 22	Sydney	221	+ 9 25	+ 9 25	+2.7	+0.1	1.76
32	Zamboanga, Basilon Strait	6 54	122 08	8 08	Sydney	221	+10 30	+10 35	0.0	0.0	0.97
33	Port Dapitan	8 38	123 24	8 14	Manila	201	− 1 12	− 1 15	+0.3	−0.1	1.09
34	Surigao	9 48	125 29	8 22	Manila	201	− 0 36	− 0 39	+1.3	−0.5	1.38
35	Port Cacub, Siargao Island	9 50	126 03	8 24	Sydney	221	+ 9 43	+ 9 46	+3.2	+0.2	1.85
	Paragua Island.										
36	Secam Island, Balabac Strait	8 11	116 58	7 48	Manila	201	+ 1 20	+ 1 02	+0.1	−0.1	1.04
37	Ulugan Bay	10 06	118 47	7 55	Manila	201	− 0 08	− 0 26	+0.6	−0.2	1.17
38	Cavern Island	11 13	119 16	7 57	Manila	201	− 0 10	− 0 28	+0.4	0.0	1.11
39	Paly or Barren Island	10 42	119 42	7 59	Manila	201	− 0 12	− 1 00	+0.8	−0.2	1.23
40	Puerto Princesa	9 44	118 42	7 55	Manila	201	+ 1 12	− 1 16	+1.3	−0.5	1.38
	Iloilo Strait.										
41	Point Bondulan, Guimaras Island	10 38	122 33	8 10	Hongkong	189	+ 1 29	+ 1 35	−0.9	−0.3	0.82
42	Iloilo, Panay Island	10 42	122 34	8 10	Hongkong	189	+ 1 32	+ 2 15	−0.2	0.0	0.97
43	Point Cabugao, Guimaras Island	10 45	122 39	8 11	Hongkong	189	+ 1 45	+ 2 31	+1.0	+0.2	1.24

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	[3 17]	[9 29]	7 45a	7 49b	[1.3]	.....	.....	6.6	.....	.....	7 50	6.6	2.2	3.3	2.0
2	[2 08]	[8 21]	8 10a	8 10b	[1.1]	.....	.....	5.6	.....	.....	8 12	5.5	1.9	2.8	2.0
3	[9 30]	[3 18]	15 32a	3 08a	[1.0]	.....	.....	4.9	.....	.....	.....	4.9	1.6	2.4	2.0
4	[10 20]	[4 07]	16 22a	3 57a	[1.5]	.....	.....	7.5	.....	.....	.....	7.5	2.5	3.8	2.0
5	[7 45]	[1 33]	9 24b	0 58b	[2.8]	.....	.....	7.0	.....	.....	.....	6.0	2.6	3.5	2.0
6	[5 31]	[11 44]	7 10b	11 09a	[3.9]	.....	.....	4.6	1.3	3.3	22 18	3.7	3.1	2.6	2.0
7	11 30	5 18	10 47b	5 29b	5.4	7.3	3.1	6.9	1.1	3.6	.....	3.8	3.9	4.1	2.0
8	7 00	0 47	6 17b	0 59b	5.3	7.2	3.1	7.1	1.0	3.6	.....	3.8	3.9	4.1	2.0
9	4 35	10 47	3 51b	10 59a	5.0	6.7	2.9	6.8	1.0	3.5	.....	3.6	3.7	3.9	2.5
10	4 00	10 12	3 22b	10 22a	6.7	9.0	3.9	8.7	1.2	4.0	.....	4.2	4.7	5.0	2.5
11	5 20	11 35	4 49b	11 43a	10.4	14.1	6.1	12.9	1.5	5.0	.....	5.3	6.9	7.2	2.5
12	9 35	3 23	8 47b	3 36a	4.1	5.5	2.4	5.7	0.9	3.2	.....	3.3	3.2	3.3	2.0
13	9 50	3 38	9 05b	3 50a	4.9	6.6	2.8	6.7	1.0	3.5	.....	3.6	3.7	3.8	2.0
14	12 00	5 50	11 09b	6 08a	3.8	5.2	2.2	5.8	0.9	3.0	.....	3.2	2.9	3.1	2.0
15	6 00	12 15	4 39b	12 24a	3.7	4.3	3.1	6.6	0.8	4.4	.....	4.5	3.4	3.9	1.5
16	6 35	0 23	5 29b	0 30b	5.6	6.4	4.7	9.0	0.9	5.5	.....	5.6	4.7	5.3	1.5
17	4 40	10 55	3 16b	11 04a	3.4	3.9	2.9	6.2	0.7	4.3	.....	4.3	3.2	3.8	2.0
18	0 33	6 46	− 1 29b	6 59a	1.6	1.9	1.4	3.5	0.5	2.9	19 38	3.0	1.8	2.2	2.0
19	1 20	7 32	− 0 01b	7 41a	3.7	4.2	3.1	6.6	0.8	4.4	.....	4.5	3.4	3.8	2.0
20	2 20	8 32	1 19b	8 38a	6.5	7.5	5.5	10.2	1.0	5.9	.....	6.0	5.3	6.0	2.0
21	5 50	12 00	4 18b	12 08a	2.9	3.3	2.4	5.4	0.7	3.9	.....	4.0	2.8	3.2	2.0
22	1 45	7 57	0 48b	8 08a	7.8	9.0	6.6	11.9	1.1	6.4	.....	6.6	6.1	6.8	2.5
23	2 20	8 32	1 15b	8 39a	5.0	5.7	4.2	8.4	0.9	5.2	.....	5.3	4.3	4.9	3.0
24	2 00	8 10	1 02b	8 16a	7.7	8.8	6.5	11.8	1.1	6.4	.....	6.5	6.1	6.8	2.0
25	5 00	11 12	3 47b	11 19a	4.1	4.7	3.4	7.1	0.8	4.7	.....	4.7	3.7	4.2	2.0
26	5 00	11 10	3 36b	11 18a	3.4	3.9	2.9	6.2	0.7	4.3	.....	4.3	3.2	3.7	2.0
27	4 50	11 00	3 41b	11 07a	5.1	5.8	4.3	8.5	0.9	5.2	.....	5.3	4.4	4.9	1.5
28	[9 20]	[3 25]	7 10b	3 00a	[2.0]	[2.6]	[1.3]	6.6	.....	.....	.....	4.7	2.1	3.0	2.0
29	5 54	− 0 18	5 57b	0 18a	7.5	8.6	6.4	9.6	3.4	0.5	.....	3.4	4.3	5.3	2.0
30	[9 38]	[3 10]	7 35b	3 15a	[1.5]	[2.0]	[1.0]	5.0	.....	.....	.....	4.0	1.7	2.2	1.5
31	6 00	− 0 13	6 06b	0 49a	6.0	6.9	5.1	8.8	4.7	0.4	.....	4.7	3.5	4.2	1.0
32	6 50	0 42	6 58b	2 06a	3.3	3.8	2.8	5.4	3.5	0.3	.....	3.5	2.1	2.4	1.5
33	[10 48]	[4 50]	8 45b	5 00a	[1.5]	[2.0]	[1.0]	5.1	.....	.....	.....	4.0	1.7	2.3	1.5
34	[11 40]	[6 15]	9 30b	5 45a	[1.9]	[2.5]	[1.3]	6.5	.....	.....	.....	4.6	2.0	2.9	1.0
35	6 20	0 10	6 25b	1 10a	6.3	7.2	5.4	9.2	4.8	0.5	.....	4.8	3.8	5.2	1.0
36	[11 53]	[5 44]	10 50b	6 50a	[1.5]	[1.9]	[1.0]	4.9	.....	.....	.....	4.0	1.6	2.2	1.5
37	[10 30]	[4 28]	9 30b	5 30a	[1.6]	[2.1]	[1.1]	5.5	.....	.....	.....	4.2	1.8	2.4	1.5
38	[10 30]	[4 28]	9 30b	5 30a	[1.6]	[2.0]	[1.0]	5.2	.....	.....	.....	4.2	1.8	2.3	1.5
39	[10 20]	[4 20]	9 30b	5 00a	[1.7]	[2.3]	[1.2]	5.8	.....	.....	.....	4.3	1.9	2.6	1.5
40	[11 30]	[5 20]	10 30b	4 40a	[1.9]	[2.5]	[1.3]	6.5	.....	.....	.....	4.6	2.0	3.1	1.5
41	11 03	4 42	10 20b	5 52a	2.7	3.5	1.7	5.5	3.4	2.4	.....	4.0	2.1	2.6	1.0
42	11 06	5 22	10 27b	6 26a	3.2	4.2	1.9	6.2	3.7	2.6	21 11	4.4	2.6	2.9	1.0
43	11 20	5 39	10 45b	6 36a	4.1	5.4	2.4	7.5	4.2	2.9	.....	5.0	3.3	3.5	1.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	MALAY OR EASTERN ARCHIPELAGO—Continued.										
	PHILIPPINE ISLANDS—continued.										
	Cebu, Leyte, and Samar Islands.	*North.*	*East.*				*Time meridian 120° East.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Cebu, Cebu Island	10 18	123 53	8 16	Sydney	221	− 9 43	− 9 47	+0.2	+0.2	0.97
2	Ormoc, Leyte Island	11 00	124 36	8 18	Sydney	221	− 9 40	− 9 50	+1.2	+1.0	1.06
3	Maasin, Leyte Island	10 08	124 50	8 19	Sydney	221	− 9 34	−10 18	−1.1	−0.1	0.71
4	Tacloban, Leyte Island	11 15	125 00	8 20	Sydney	221	+10 21	+11 06	−2.2	−0.2	0.38
5	Santa Elena, San Juanico Strait	11 21	124 59	8 20	Sydney	221	−10 31	−10 54	−1.2	+0.6	0.44
6	Santa Rita, San Juanico Strait	10 26	124 57	8 20	Sydney	221	− 9 22	− 9 88	−0.4	+0.2	0.85
7	Catbalogan, Samar Island	11 46	124 53	8 20	Sydney	221	− 9 32	− 9 42	+0.4	+0.2	1.06
8	Calbayog, Samar Island	12 07	124 38	8 19	Sydney	221	− 9 36	− 9 42	−0.6	0.0	0.79
9	Palapag, Samar Island	12 38	125 00	8 20	Sydney	221	+10 28	+10 31	+0.9	+0.1	1.24
10	Guinan, Samar Island	11 01	125 43	8 23	Sydney	221	+10 18	+10 25	−2.4	−0.2	0.47
	Lesser Islands.										
11	Busainga, Burias Island	13 02	123 14	8 13	Manila	201	+ 2 59	+ 0 06	+0.6	−0.2	1.17
12	Romblon, Romblon Island	12 35	122 15	8 09	Manila	201	+ 0 16	+ 0 05	+0.5	+0.7	0.96
13	Halsey Harbor, Culion Island	11 48	119 58	8 00	Manila	201	+ 0 05	+ 0 33	−0.8	+0.4	0.77
	Luzon Island.										
14	Balayan, Balayan Bay	13 56	120 44	8 03	Manila	201	− 2 42	− 2 08	0.0	−0.2	1.04
15	Mariveles, Entrance to Manila Bay	14 26	120 29	8 02	Manila	201	− 0 35	− 0 13	−0.3	+0.1	0.91
16	Corregidor I., Ent. to Manila Bay	14 24	120 34	8 02	Manila	201	− 0 31	− 0 08	−0.2	+0.2	0.94
17	MANILA, Pasig River Entrance	14 36	120 57	8 04	Manila	201	0 00	0 00	0.0	0.0	1.00
18	Olongapo, Subig Bay	14 50	120 16	8 01	Manila	201	− 0 38	− 0 10	−0.6	0.0	0.85
19	Subig, Subig Bay	14 54	120 13	8 01	Manila	201	− 0 16	+ 0 18	−0.8	0.0	0.85
20	Port Silanguin	14 48	120 07	8 00	Manila	201	− 0 56	− 0 28	−2.1	+0.3	0.49
21	Santa Cruz	15 46	119 53	8 00	Manila	201	− 0 41	− 0 59	−2.2	+0.4	0.47
22	Bolinao, Gulf of Lingayen	16 24	119 56	8 00	Manila	201	− 1 08	− 0 32	−1.4	+0.2	0.68
23	Port Sual, Gulf of Lingayen	16 04	120 06	8 00	Manila	201	− 1 02	+ 0 17	−1.4	0.0	0.70
24	Santo Tomas, Gulf of Lingayen	16 16	120 24	8 02	Manila	201	− 1 30	+ 1 42	−1.2	+0.4	0.64
25	San Fernando, Gulf of Lingayen	16 37	120 18	8 01	Manila	201	− 1 32	+ 0 38	−1.6	+0.4	0.55
26	Aparri, Cagayan River	18 22	121 37	8 06	Apia	209	− 1 02	− 0 59	−0.1	−0.1	1.00
27	Camalaningan, Cagayan River	18 17	121 38	8 07	Apia	209	− 0 46	− 0 50	+0.1	−0.1	1.08
28	Port San Pio V, Camiguin Island	18 50	121 50	8 07	Nagasaki	173	− 2 21	− 2 20	−2.6	−0.2	0.61
29	Alabat Island, Lamon Bay	14 08	121 52	8 07	Nagasaki	173	+ 1 29	+ 1 30	+0.2	+0.2	1.00
30	Tabaco, Tabaco Bay	13 22	123 44	8 15	Nagasaki	173	− 2 21	− 2 16	−2.4	−0.2	0.65
31	Legaspi, Gulf of Albay	13 09	123 45	8 15	Nagasaki	173	+ 9 39	+ 9 30	−2.2	−0.6	0.74
	POLYNESIA.										
	NORTH PACIFIC GROUPS.										
	Bonin or Arzobispo Islands.										
32	Newport, Hillsboro Island	26 36	142 09	9 29	Honolulu	205	+ 7 01	+ 6 58	+1.1	+0.1	1.87
33	Port Lloyd, Peel Island	27 05	142 12	9 29	Honolulu	205	+ 1 41	+ 1 43	+0.9	+0.1	1.61
	Ladrone or Mariana Islands.										
34	Guam or Guajan Island	13 26	144 39	9 39	Honolulu	205	+ 2 51	+ 3 03	+0.9	+0.1	1.70
35	Saipan Island	15 19	145 44	9 43	Honolulu	205	+ 2 31	+ 2 33	+0.5	+0.1	1.36
	Caroline Islands.										
36	Tomil Bay, Yap or Uap Island	9 30	138 05	9 12	Honolulu	205	+ 2 47	+ 2 44	+1.6	0.0	2.29
37	Kiti Harbor, Ponapi Island	6 47	158 08	10 33	Honolulu	205	− 0 31	− 0 29	+2.4	+0.2	2.88
38	Kusaie or Ualan Island	5 20	163 05	10 52	Honolulu	205	+ 1 28	+ 1 30	+1.7	+0.1	2.37
	Marshall Islands.										
39	Kivajalein Island	8 40	167 45	11 11	Honolulu	205	− 0 32	− 0 30	+2.7	+0.4	2.97
40	Ebon Atoll, or Boston Island	4 35	168 40	11 15	Honolulu	205	+ 0 12	+ 0 14	+3.1	+0.5	3.22
41	Ailuk Island	10 25	170 00	11 20	Honolulu	205	+ 0 17	+ 0 14	+4.3	+0.5	4.24
42	Port Rhin, Mulgrave Islands	6 14	171 45	11 27	Honolulu	205	+ 0 27	+ 0 29	+3.3	+0.5	3.39
	Gilbert Islands.										
43	Apamama or Hopper Island	0 30	173 55	11 36	Honolulu	205	− 0 03	− 0 01	+3.1	+0.5	3.22
44	Apaiang or Charlotte Island	1 50	172 50	11 31	Honolulu	205	+ 0 12	+ 0 14	+3.1	+0.5	3.22
	Detached islands.		*West.*								
45	Midway Islands	28 15	177 21	11 49	Honolulu	205	− 0 14	− 0 12	−0.2	+0.1	0.76
46	Howland Island	0 53	176 35	11 46	Honolulu	205	+ 3 25	+ 3 25	+4.3	+0.5	4.24
47	Palmyra Island	5 50	162 10	10 49	Honolulu	205	+ 1 41	+ 1 43	+0.2	+0.2	1.02
48	Fanning Island	3 50	159 20	10 37	Honolulu	205	+ 2 13	+ 2 15	+1.0	+0.3	1.61
49	Christmas Island	1 55	157 20	10 29	Honolulu	205	+ 0 38	+ 0 38	+1.0	+0.3	1.61

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean. (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW. interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	11 35	5 18	10 54b	6 18a	3.3	4.5	1.6	5.7	3.1	2.2	21 19	3.9	2.3	2.7	1.0
2	11 40	5 17	11 00b	6 18a	3.6	5.0	1.8	5.8	3.0	2.0	.....	4.0	3.2	3.6	1.0
3	11 47	4 50	11 56b	6 29a	2.4	2.8	2.0	4.2	3.0	0.3	.....	3.0	1.5	1.9	1.0
4	6 53	1 25	7 05b	3 39a	1.3	1.5	1.1	2.6	2.2	0.2	19 44	2.2	0.9	0.9	1.0
5	10 51	4 15	10 08b	5 12a	1.5	2.1	0.8	3.4	1.0	0.4	.....	1.1	1.8	1.0	1.0
6	12 00	5 31	11 17b	6 28a	2.9	4.0	1.2	4.8	2.4	1.9	21 28	3.2	2.0	2.3	1.0
7	11 50	5 27	11 12b	6 20a	3.6	4.8	1.9	5.7	2.9	2.1	21 25	3.7	2.4	2.7	1.0
8	11 45	5 26	11 10b	6 30a	2.7	3.9	1.1	4.5	2.6	1.5	21 50	3.1	1.8	2.0	1.0
9	7 00	0 50	7 07b	2 05a	4.2	4.8	3.6	6.6	4.0	0.4	.....	4.0	2.6	3.1	1.0
10	6 53	0 47	7 06b	3 01a	1.6	2.3	1.3	2.6	1.5	0.2	.....	2.0	0.6	0.6	1.0
11	[4 30]	[10 20]	0 30a	6 20a	[1.6]	[2.1]	[1.1]	5.5	.....	.....	.....	4.2	1.8	2.4	1.0
12	[11 12]	[4 39]	10 08b	6 15a	[2.7]	[3.6]	[1.5]	4.5	.....	.....	.....	3.9	2.2	2.7	1.0
13	[10 28]	[4 12]	9 48b	6 34a	[2.0]	[2.6]	[1.0]	3.6	.....	.....	.....	3.4	1.4	1.8	1.0
14	[11 07]	[4 50]	7 04b	3 56a	[1.5]	[1.9]	[1.0]	4.9	.....	.....	.....	4.0	1.5	2.2	1.0
15	[10 19]	[3 53]	9 10b	5 50a	[1.3]	[1.7]	[0.8]	4.3	.....	.....	.....	3.8	1.5	1.9	1.0
16	[10 22]	[3 56]	9 14b	5 55a	[1.2]	[1.6]	[0.8]	4.4	.....	.....	20 50	3.9	1.6	2.0	1.0
17	[10 51]	[4 29]	9 47b	6 05a	[1.6]	[2.1]	[0.9]	4.7	.....	.....	20 30	3.9	1.6	2.2	1.0
18	[10 03]	[3 52]	9 06b	5 52a	[1.2]	[1.5]	[0.8]	4.0	.....	.....	20 13	3.5	1.3	1.8	1.0
19	[10 25]	[4 20]	9 28b	6 20a	[1.2]	[1.5]	[0.8]	4.0	.....	.....	.....	3.5	1.2	1.4	1.0
20	[9 43]	[3 33]	8 47b	5 33a	[0.8]	[0.9]	[0.7]	2.3	.....	.....	.....	1.8	0.7	1.0	1.0
21	[9 49]	[3 06]	9 02b	5 02a	[0.8]	[0.9]	[0.7]	2.2	.....	.....	20 05	1.9	0.7	0.9	0.5
22	[10 21]	[3 44]	8 35b	5 29a	[0.7]	[0.9]	[0.4]	3.2	.....	.....	20 08	3.1	1.0	1.1	0.5
23	[10 20]	[3 33]	8 41b	6 18a	[0.6]	[0.8]	[0.4]	3.3	.....	.....	20 29	3.3	0.9	1.1	0.5
24	[9 26]	[4 23]	8 15b	7 45a	[0.9]	[1.2]	[0.6]	3.0	.....	.....	.....	3.1	1.2	1.3	0.5
25	[9 40]	[3 29]	8 12b	6 40a	[0.8]	[1.0]	[0.5]	2.6	.....	.....	.....	2.9	1.0	1.2	0.5
26	6 10	0 00	5 25b	− 0 17a	2.6	3.2	1.6	2.7	0.3	0.8	.....	0.8	1.5	1.3	0.5
27	6 27	0 10	5 45b	− 0 05a	2.8	3.3	1.9	2.9	0.4	0.9	.....	0.9	1.6	1.4	0.5
28	6 00	− 0 12	5 15b	− 0 03a	3.8	5.0	2.7	5.5	1.1	2.0	.....	2.2	2.6	3.5	0.5
29	9 50	3 38	9 13b	3 45a	6.2	8.1	4.3	8.3	1.4	2.5	.....	2.9	4.2	5.1	1.0
30	6 08	0 00	5 23b	0 09a	4.0	5.2	2.8	6.7	1.1	2.0	.....	2.3	2.7	3.6	1.0
31	5 43	11 46	5 54b	0 17a	4.6	5.7	2.6	4.9	0.8	1.5	.....	2.5	2.6	3.5	1.0
															West.
32	11 30	5 15	11 39a	4 18a	2.2	2.8	1.6	3.6	2.0	0.4	.....	2.0	2.4	1.4	1.0
33	6 10	0 00	6 20a	− 1 03a	1.9	2.4	1.4	3.1	1.9	0.4	.....	1.9	2.1	1.2	1.0
34	7 20	1 20	7 30a	0 22a	2.0	2.6	1.5	3.6	3.0	0.5	.....	3.1	2.4	1.5	2.0
35	7 00	0 50	7 11a	− 0 17a	1.6	2.0	1.1	2.6	1.7	0.3	.....	1.7	1.8	1.0	2.0
36	7 15	1 00	7 24a	0 06a	2.7	3.4	1.9	4.0	2.2	0.4	.....	2.3	2.8	1.6	1.5
37	4 00	10 15	4 07a	9 28b	3.4	4.3	2.4	4.9	2.5	0.5	.....	2.5	3.3	2.1	7.0
38	6 00	12 15	6 08a	11 23b	2.8	3.5	2.0	4.2	2.3	0.4	.....	2.3	2.8	1.7	8.0
39	4 00	10 15	4 08a	9 29b	3.5	4.4	2.5	5.0	2.5	0.5	.....	2.6	2.3	2.1	8.5
40	4 45	11 00	4 52a	10 15b	3.8	4.7	2.7	5.4	2.6	0.5	.....	2.7	2.5	2.3	8.5
41	4 50	11 00	4 56a	10 21b	5.0	6.2	3.6	6.8	3.0	0.6	.....	3.1	3.1	2.9	9.0
42	5 00	11 15	5 07a	10 32b	4.0	5.0	2.8	5.6	2.7	0.5	.....	2.7	2.6	2.4	9.0
43	4 30	10 45	4 37a	10 00b	3.8	4.7	2.7	5.4	2.6	0.5	.....	2.7	2.5	2.3	9.0
44	4 45	11 00	4 52a	10 15b	3.8	4.7	2.7	5.4	2.6	0.5	.....	2.7	2.5	2.3	9.0
45	3 30	9 45	3 44a	8 15b	0.9	1.1	0.6	1.7	1.3	0.2	.....	1.3	0.7	0.5	11.0
46	7 10	1 00	7 16a	0 21a	5.0	6.2	3.6	6.8	3.0	0.6	.....	3.1	3.1	2.9	8.5
47	5 25	11 40	5 37a	10 21b	1.2	1.5	0.9	2.1	1.5	0.3	.....	1.5	0.9	0.8	7.5
48	6 00	12 15	6 10a	11 12b	1.9	2.4	1.4	3.1	1.9	0.4	.....	1.9	1.4	1.2	7.0
49	4 25	10 38	4 35a	9 35b	1.9	2.4	1.4	3.1	1.9	0.4	.....	1.9	1.4	1.2	7.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	POLYNESIA—Continued.										
	NORTH PACIFIC GROUPS—cont'd.										
	Hawaiian or Sandwich Islands.	*North.*	*West.*				*Time meridian, 157° 30′ W.*		*Mean Lower Low Water.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Kauai Island	21 57	159 40	10 39	Honolulu	205	+ 0 22	+ 0 29	+0.5	+0.1	1.36
2	HONOLULU, Oahu Island	21 18	157 52	10 31	Honolulu	205	0 00	0 00	0.0	0.0	1.00
3	Kaunakakai, Molokai Island	21 05	157 02	10 28	Honolulu	205	− 1 11	− 1 06	+0.6	+0.2	1.36
4	Kahului, Maui Island	20 54	156 29	10 26	Honolulu	205	− 1 43	− 1 44	+0.8	+0.3	1.44
5	Kihei, Maalaea B., Maui Island	20 47	156 28	10 26	Honolulu	205	− 0 08	− 0 26	+0.6	+0.2	1.36
6	Lahaina, Maui Island	20 50	156 40	10 27	Honolulu	205	− 0 18	− 0 05	+0.7	+0.2	1.44
7	Kealakekua, Hawaii Island	19 28	155 56	10 24	Honolulu	205	− 1 33	− 1 56	+0.1	0.0	1.10
8	Hilo, Hawaii Island	19 46	155 06	10 20	Honolulu	205	− 0 48	− 1 04	+0.8	+0.2	1.53
	SOUTH PACIFIC GROUPS.										
	Detached islands.	*South.*					*Local time.*		*Mean Low Water Springs.*		
9	Sala y Gomez Island	26 19	105 26	7 02	Apia	209	+ 9 51	+ 9 54	0.0	0.0	1.02
10	Easter Island	27 10	109 21	7 17	Apia	209	+ 6 32	+ 6 33	−0.4	0.0	0.88
11	Rapa or Oparo Island	27 37	144 19	9 37	Apia	209	+ 6 06	+ 6 09	−0.8	0.0	0.73
12	Caroline Atoll	10 00	150 15	10 01	Apia	209	+ 9 57	+ 9 59	−1.8	−0.2	0.35
13	Tonga-rewa or Penrhyn Island	9 00	157 55	10 32	Apia	209	− 0 27	− 0 24	−1.5	−0.1	0.46
14	Suvarof Island	13 13	163 12	10 53	Apia	209	+ 9 09	+ 9 10	−0.8	0.0	0.73
15	Uea, Uvea, or Wallis Island	13 24	176 08	11 45	Apia	209	+ 0 16	+ 0 17	+1.1	+0.1	1.38
	Tuamotu or Low Archipelago.										
16	Gambier or Mangareva Island	23 05	135 00	9 00	Apia	209	− 4 40	− 4 39	−0.8	0.0	0.73
17	Bow, Harpe, or Hao Island	18 20	140 45	9 23	Apia	209	− 3 49	− 3 46	−0.8	0.0	0.73
18	Nairsa or Rangiroa Island	14 58	147 52	9 51	Apia	209	− 1 58	− 1 57	−1.0	−0.2	0.65
	Marquesas Islands.										
19	Santa Christina or Taou-ata Island	9 55	139 08	9 17	Apia	209	− 3 59	− 3 56	0.0	0.0	0.96
20	Tai-o-hae B., Nouka Hiva Island	8 52	140 00	9 20	Apia	209	− 2 39	− 2 36	+0.3	+0.1	1.08
	Society Islands.										
21	Tahiti or Otaheite Island	17 30	149 30	9 58	Apia	209	− 6 53	− 6 52	−2.0	−0.2	0.31
22	Borabora or Bolabola Island	16 30	151 45	10 07	Apia	209	− 6 43	− 6 40	−1.6	−0.2	0.42
	Tubuai or Austral Islands.										
23	Tubuai Island	23 25	149 33	9 58	Apia	209	− 3 28	− 3 27	−0.8	0.0	0.73
	Cook or Hervey Islands.										
24	Rarotonga Island	21 15	159 40	10 39	Apia	209	− 0 27	− 0 24	−0.4	0.0	0.85
	Phœnix Islands.										
25	Enderbury Island	3 09	171 11	11 25	Apia	209	− 1 25	− 1 22	+1.2	+0.2	1.42
	Tokelau or Union Islands.										
26	Fakaofu or Bowditch Island	9 25	171 15	11 25	Apia	209	− 0 25	− 0 24	−0.8	0.0	0.73
	Samoa or Navigator Islands.										
27	APIA, Upolu Island	13 46	171 44	11 27	Apia	209	0 00	0 00	0.0	0.0	1.00
28	Pango Pango, Tutuila Island	14 17	170 42	11 23	Apia	209	+ 0 35	+ 0 33	−0.4	0.0	0.85
29	Manua Island	14 15	169 30	11 18	Apia	209	− 0 25	− 0 24	+1.2	+0.2	1.42
	Tonga or Friendly Islands.										
30	Vavau Island	18 34	173 58	11 36	Apia	209	− 0 05	− 0 02	+0.6	0.0	1.19
31	Namuka Island	20 15	174 46	11 39	Apia	209	+ 1 25	+ 1 23	0.0	0.0	1.00
32	Tongatabu Harbor	21 00	175 10	11 41	Apia	209	− 0 05	− 0 02	+0.6	0.0	1.19
	Fiji Islands.		*East.*								
33	Vatoa or Turtle Island	19 49	181 46	12 07	Apia	209	− 1 04	− 1 01	0.0	0.0	0.96
34	Mango Island	17 25	180 50	12 03	Apia	209	− 1 04	− 1 01	0.0	0.0	0.96
35	Totoya Island	18 56	180 10	12 01	Apia	209	− 0 39	− 0 41	+0.3	+0.1	1.08
36	Savu Savu Bay, Vanua Levu Island	16 43	179 15	11 57	Apia	209	− 1 14	− 1 13	+1.0	+0.2	1.35
37	Suva Harbor, Viti Levu Island	18 08	178 26	11 54	Apia	209	− 0 44	− 0 46	+0.4	0.0	1.12
38	Ngaloa Bay, Kandavu Island	19 02	178 15	11 53	Apia	209	− 0 34	− 0 36	+0.7	+0.1	1.23
	Detached Islands.										
39	Rotumah Island	12 30	177 02	11 48	Apia	209	− 0 58	− 1 00	+0.9	+0.1	1.31
40	North Minerva Reef	23 36	181 06	12 04	Apia	209	+ 0 36	+ 0 34	+2.2	+0.2	1.73
	Kermadec Islands.										
41	Raoul or Sunday Island	29 13	182 15	12 09	Port Russell	217	+10 27	+10 44	−2.4	−0.4	0.59

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	4 00	10 20	4 11a	9 13b	1.6	2.0	1.1	2.6	1.7	0.3	.....	1.7	1.0	1.0	10.5
2	3 46	9 59	3 59a	8 39b	1.2	1.5	0.8	2.0	1.5	0.3	4 31	1.5	0.7	0.8	10.0
3	2 38	8 56	2 49a	7 49b	1.6	2.1	1.1	3.2	2.4	0.3	.....	2.4	1.1	1.0	10.0
4	2 08	8 20	2 18a	7 18b	1.7	2.2	1.2	3.3	2.5	0.4	.....	2.5	1.2	1.1	10.0
5	3 43	9 38	3 53a	8 36b	1.6	2.1	1.1	3.2	2.4	0.3	.....	2.4	1.0	1.0	10.0
6	3 32	9 58	3 32a	8 56b	1.7	2.2	1.2	3.3	2.5	0.4	.....	2.5	1.1	1.1	10.0
7	2 20	8 10	2 32a	6 53b	1.3	1.6	0.9	2.2	1.5	0.3	.....	1.6	0.8	0.9	9.5
8	3 09	9 06	3 20a	8 04b	1.8	2.3	1.3	3.4	2.6	0.4	.....	2.6	1.2	1.2	9.5
9	4 00	10 15	3 59a	10 25b	2.7	3.3	2.0	2.8	0.4	0.1	.....	0.4	1.6	1.3	13.5
10	0 40	6 53	0 38a	7 04b	2.3	2.8	1.7	2.4	0.4	0.1	.....	0.4	1.4	1.1	13.0
11	0 10	6 25	0 09a	6 35b	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	10.0
12	4 00	10 14	3 58a	10 28b	0.9	1.1	0.7	0.9	0.2	0.0	.....	0.2	0.6	0.9	7.0
13	6 00	12 15	5 58a	12 31b	1.2	1.5	0.9	1.2	0.3	0.0	.....	0.3	0.8	0.5	7.0
14	3 10	9 23	3 09a	9 33b	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	8.0
15	6 40	0 28	6 39a	0 35a	3.6	4.4	2.7	3.7	0.4	0.1	.....	0.4	2.2	1.7	9.0
16	1 50	8 03	1 49b	8 13b	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	9.5
17	2 40	8 55	2 39b	9 05b	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	8.0
18	4 30	10 43	4 38b	10 55b	1.7	2.1	1.3	1.7	0.3	0.1	.....	0.3	1.0	0.8	7.5
19	2 30	8 45	2 29b	8 55b	2.5	3.1	1.9	2.6	0.4	0.1	.....	0.4	1.6	1.2	7.0
20	3 50	10 05	3 49b	10 14b	2.8	3.5	2.1	2.9	0.4	0.1	.....	0.4	1.8	1.4	7.0
21	12 00	5 48	11 58a	6 04b	0.8	1.0	0.6	0.8	0.2	0.0	.....	0.2	0.5	0.3	8.0
22	12 10	6 00	12 08a	6 12b	1.1	1.4	0.8	1.1	0.2	0.0	.....	0.2	0.7	0.5	7.5
23	3 00	9 13	2 59b	9 23b	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	9.5
24	6 00	12 15	5 59b	12 24b	2.2	2.7	1.7	2.2	0.3	0.1	.....	0.3	1.4	1.1	9.0
25	5 00	11 15	4 59b	11 22b	3.7	4.6	2.7	3.8	0.4	0.1	.....	0.4	2.3	1.8	8.0
26	6 00	12 13	5 59b	12 23b	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	8.5
27	6 25	0 12	6 22b	0 20a	2.6	3.2	2.0	2.7	0.3	0.1	17.10	0.3	1.6	1.3	8.5
28	7 00	0 45	6 59b	0 54a	2.2	2.7	1.6	2.2	0.3	0.1	.....	0.3	1.4	1.1	8.5
29	6 00	12 13	5 59b	12 20b	3.7	4.6	2.7	3.7	0.4	0.1	.....	0.4	2.3	1.8	8.5
30	6 20	0 10	6 19b	0 18a	3.1	3.8	2.3	3.1	0.4	0.1	.....	0.4	1.9	1.5	9.5
31	7 50	1 35	7 49b	1 45a	2.6	3.2	2.0	2.6	0.4	0.1	.....	0.4	1.6	1.3	10.0
32	6 20	0 10	6 19b	0 18a	3.1	3.8	2.3	3.1	0.4	0.1	.....	0.4	1.9	1.5	10.0
															East.
33	6 10	0 00	6 09b	0 10a	2.5	3.1	1.9	2.5	0.4	0.1	.....	0.4	1.6	1.2	10.0
34	6 10	0 00	6 09b	0 10a	2.5	3.1	1.9	2.5	0.4	0.1	.....	0.4	1.6	1.2	9.5
35	6 35	0 20	6 34b	0 29a	2.8	3.5	2.1	2.8	0.4	0.1	.....	0.4	1.8	1.4	10.0
36	6 00	12 13	5 59b	12 20b	3.5	4.3	2.6	3.5	0.4	0.1	.....	0.4	2.2	1.7	9.5
37	6 30	0 15	6 29b	0 24a	2.9	3.6	2.2	2.9	0.4	0.1	.....	0.4	1.8	1.4	9.5
38	6 40	0 25	6 39b	0 33a	3.2	4.0	2.4	3.2	0.4	0.1	.....	0.4	2.0	1.6	10.0
39	6 15	0 00	6 14b	0 08a	3.4	4.2	2.5	3.5	0.4	0.1	.....	0.4	2.1	1.7	9.5
40	7 50	1 35	7 49b	1 42a	4.5	5.5	3.3	4.6	0.5	0.1	.....	0.5	2.8	2.2	10.5
41	6 00	12 13	6 02b	12 09b	3.0	3.3	2.7	3.3	0.3	0.2	.....	0.3	1.6	1.6	12.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	AUSTRALASIA.										
	NEW ZEALAND.										
	Stewart Island.	South.	East.				Time meridian, 172° 30′ East.		Mean Low Water Springs.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Port Pegasus	47 13	167 43	11 11	Port Russell	217	+4 46	+4 12	+2.0	0.0	1.39
2	Mason Bay	46 56	167 45	11 11	Port Russell	217	+5 56	+5 17	+1.7	−0.1	1.35
3	Paterson Inlet	46 57	168 09	11 13	Port Russell	217	+6 24	+5 45	+1.8	0.0	1.37
	South Island.										
4	Akaroa Harbor	43 45	172 46	11 31	Port Russell	217	−3 35	−4 14	+1.4	0.0	1.29
5	Timaru	44 23	171 18	11 25	Port Russell	217	−3 34	−4 18	+0.6	−0.2	1.14
6	Oamaru	45 06	171 01	11 24	Port Russell	217	−3 38	−4 22	+0.2	−0.2	1.06
7	Port Chalmers, Otago Harbor	45 49	170 39	11 23	Port Russell	217	−3 41	−4 27	−0.2	−0.2	0.98
8	Dunedin, Otago Harbor	45 58	170 32	11 22	Port Russell	217	−3 15	−3 59	−0.3	−0.1	0.96
9	Molyneux Bay	46 23	169 38	11 19	Port Russell	217	−4 17	−5 01	+1.8	0.0	1.37
10	Waikawa Harbor	46 39	169 09	11 17	Port Russell	217	−4 45	−5 29	+1.6	0.0	1.33
11	Ruapuke Island, Foveaux Strait	46 38	168 33	11 14	Port Russell	217	+6 33	+5 49	+1.7	−0.1	1.35
12	Awarui or Bluff Harbor	46 36	168 22	11 13	Port Russell	217	+6 29	+5 45	+1.8	0.0	1.37
13	Center Island, Foveaux Strait	46 28	167 52	11 10	Port Russell	217	+5 32	+4 48	+1.6	0.0	1.33
14	Preservation Inlet	46 08	166 37	11 06	Port Russell	217	+4 16	+3 37	+1.6	0.0	1.31
15	Dusky Bay	45 46	166 33	11 06	Port Russell	217	+4 17	+3 32	+3.6	0.0	1.71
16	Bligh Sound	44 50	167 32	11 10	Port Russell	217	+3 47	+3 08	+2.0	0.0	1.39
17	Haast River Entrance	43 50	169 04	11 16	Port Russell	217	+3 36	+2 57	+1.8	0.0	1.37
18	Okarito Lagoon	43 17	170 18	11 21	Port Russell	217	+3 21	+2 42	−0.6	−0.1	0.90
19	Hokitika Bar	42 42	170 59	11 24	Port Russell	217	+3 07	+2 28	+3.5	+0.1	1.67
20	Greymouth, Grey River	42 27	171 13	11 25	Port Russell	217	+2 56	+2 17	+3.8	0.0	1.73
21	Westport, Buller River	41 46	171 38	11 27	Port Russell	217	+2 39	+2 00	+3.4	0.0	1.65
22	Wauganui Inlet	40 35	172 33	11 30	Port Russell	217	+2 11	+1 32	+1.1	−0.1	1.24
23	Motupipi River, West Entrance	40 48	172 49	11 31	Port Russell	217	+2 20	+1 41	+7.7	+0.3	2.45
24	Nelson	41 15	173 17	11 33	Port Russell	217	+2 33	+1 54	+5.8	+0.2	2.10
25	Croisilles Harbor	41 03	173 42	11 35	Port Russell	217	+2 26	+1 47	+5.6	+0.2	2.06
26	Port Hardy	40 42	173 56	11 36	Port Russell	217	+2 20	+1 41	+5.4	+0.2	2.04
27	Pelorus Sound Entrance	40 52	174 10	11 37	Port Russell	217	+1 59	+1 20	+4.6	+0.2	1.88
28	Queen Charlotte Sound Entrance	41 04	174 21	11 37	Port Russell	217	+1 14	+0 35	+1.8	0.0	1.37
29	Pictou Harbor	41 18	174 03	11 36	Wellington	213	+4 01	+4 24	+1.6	0.0	1.45
30	Port Underwood	41 23	174 10	11 37	Wellington	213	+1 10	+1 23	+3.8	+0.2	2.12
31	Cape Campbell	41 44	174 19	11 37	Wellington	213	−0 05	+0 08	+3.8	+0.2	2.09
32	Kaikoura Peninsula	42 23	173 44	11 35	Wellington	213	−0 23	−0 10	+2.3	+0.1	1.67
33	Port Lyttleton	43 35	172 50	11 31	Wellington	213	−0 44	−0 31	+2.5	+0.1	1.73
	North Island.										
34	East Cape	37 40	178 32	11 54	Wellington	213	+2 52	+3 05	+3.0	+0.2	1.88
35	Poverty Bay	38 42	178 01	11 52	Wellington	213	+1 25	+1 38	+1.8	+0.2	1.52
36	Clyde (Wairoa River)	39 02	177 26	11 50	Wellington	213	+1 12	+1 25	+3.1	+0.1	1.91
37	Napier (Ahuriri Harbor)	39 29	176 55	11 48	Wellington	213	+1 04	+1 12	0.0	0.0	0.97
38	Cape Palliser	41 38	175 15	11 41	Wellington	213	−0 14	−0 06	+2.0	0.0	1.58
39	WELLINGTON, Port Nicholson	41 17	174 46	11 39	Wellington	213	0 00	0 00	0.0	0.0	1.00
40	Porirua Harbor	41 04	174 51	11 39	Wellington	213	+1 58	+2 11	+4.0	−0.2	2.18
41	Manawatu River	40 29	175 13	11 41	Wellington	213	+4 46	+4 59	+2.6	+0.2	1.76
42	Wauganui River	39 58	175 00	11 40	Wellington	213	+5 12	+5 25	+3.2	+0.2	1.94
43	Opunake Bay	39 29	173 52	11 35	Port Russell	217	+2 01	+1 22	+2.6	+0.2	1.49
44	New Plymouth (Taranaki)	39 05	174 05	11 36	Port Russell	217	+1 50	+1 11	+5.2	+0.4	1.96
45	Kawhia Harbor	38 04	174 50	11 39	Port Russell	217	+1 42	+1 03	+5.6	+0.4	2.02
46	Whaingaroa Harbor	37 47	174 53	11 40	Port Russell	217	+1 39	+0 57	+6.0	+0.4	2.06
47	Manukan Harbor Entrance	37 03	174 32	11 38	Port Russell	217	+1 38	+0 54	+6.2	+0.4	2.14
48	Manukan Wairopa Channel	37 04	174 31	11 38	Port Russell	217	+2 18	+1 39	+7.4	+0.6	2.35
49	Kaipara Harbor Entrance	36 23	174 10	11 37	Port Russell	217	+1 34	+0 55	+3.8	+0.2	1.69
50	Hokianga River Entrance	35 34	173 19	11 33	Port Russell	217	+1 18	+0 39	+3.0	+0.2	1.55
51	Cape Maria, Van Diemen	34 30	172 39	11 31	Port Russell	217	+0 30	−0 09	+0.8	0.0	1.16
52	Whangaroa Harbor	35 06	173 46	11 35	Port Russell	217	+0 16	−0 23	+0.4	0.0	1.08
53	PORT RUSSELL (Bay of Islands)	35 16	174 08	11 37	Port Russell	217	0 00	0 00	0.0	0.0	1.00
54	Whangaruru	35 26	174 24	11 38	Port Russell	217	−0 12	−0 51	+0.4	0.0	1.10
55	Wangari Harbor	35 53	174 30	11 38	Port Russell	217	−0 22	−1 01	+0.8	0.0	1.14
56	Great Barrier Island, Nagle Cove	36 11	175 33	11 42	Port Russell	217	−0 36	−1 15	+2.7	+0.1	1.51
57	Auckland Harbor	36 50	174 49	11 39	Port Russell	217	−0 08	−0 47	+4.5	+0.3	1.82
58	River Thames, Entrance	37 10	175 35	11 42	Port Russell	217	+0 04	−0 35	+4.7	+0.3	1.86
59	Coromandel Harbor	36 45	175 31	11 42	Port Russell	217	−0 26	−1 05	+4.4	+0.4	1.80
60	Mercury Bay	36 46	175 54	11 44	Port Russell	217	−0 23	−1 02	+1.2	0.0	1.22
61	Tauranga Harbor	37 36	176 12	11 45	Port Russell	217	−0 29	−1 08	+0.1	−0.1	1.04
62	Opotiki River	38 00	177 18	11 49	Port Russell	217	−0 38	−1 17	−0.9	−0.1	0.84
63	Cape Runaway	37 32	178 00	11 52	Port Russell	217	+0 28	−0 11	+0.6	0.0	1.12

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	11 45	5 40	11 46b	5 36b	7.1	7.9	6.2	7.2	0.5	0.1	.....	0.5	4.0	3.6	16.5
2	0 30	6 45	0 31a	6 41b	6.9	7.7	6.1	7.0	0.5	0.1	.....	0.5	3.8	3.4	16.5
3	1 00	7 15	1 01a	7 11b	7.0	7.8	6.2	7.1	0.5	0.1	.....	0.5	3.9	3.5	16.5
4	3 45	10 00	3 46a	9 56b	6.6	7.4	5.8	6.7	0.5	0.1	.....	0.5	3.7	3.3	16.0
5	3 40	9 50	3 41a	9 47b	5.8	6.5	5.1	5.9	0.4	0.1	.....	0.4	3.2	2.9	16.0
6	3 35	9 45	3 36a	9 41b	5.4	6.0	4.8	5.5	0.4	0.1	.....	0.4	3.0	2.7	16.0
7	3 31	9 39	3 32a	9 35b	5.0	5.6	4.4	5.1	0.4	0.1	4.52	0.4	2.8	2.5	16.5
8	3 55	10 05	3 56a	10 01b	4.9	5.5	4.3	5.0	0.4	0.1	.....	0.4	2.8	2.4	16.5
9	2 50	9 00	2 51a	8 56b	7.0	7.8	6.2	7.1	0.5	0.1	.....	0.5	3.9	3.5	16.5
10	2 20	8 30	2 21a	8 26b	6.8	7.6	6.0	6.9	0.5	0.1	.....	0.5	3.8	3.4	16.5
11	1 10	7 20	1 11a	7 16b	6.9	7.7	6.1	7.0	0.5	0.1	.....	0.5	3.8	3.4	16.5
12	1 05	7 15	1 06a	7 11b	7.0	7.8	6.2	7.1	0.5	0.1	.....	0.5	3.9	3.5	16.5
13	0 05	6 15	0 06a	6 11b	6.8	7.6	6.0	6.9	0.5	0.1	.....	0.5	3.8	3.4	16.5
14	11 10	5 00	11 11b	4 56a	6.7	7.5	5.9	6.8	0.5	0.1	.....	0.5	3.8	3.4	16.0
15	11 05	4 55	11 06b	4 52a	8.7	9.7	7.7	8.8	0.5	0.1	.....	0.5	4.8	4.4	16.0
16	10 45	4 35	10 46b	4 31a	7.1	8.0	6.2	7.2	0.5	0.1	.....	0.5	4.0	3.6	16.0
17	10 40	4 30	10 41b	4 26a	7.0	7.8	6.2	7.1	0.5	0.1	.....	0.5	3.9	3.5	15.5
18	10 30	4 20	10 31b	4 16a	4.6	5.1	4.0	4.7	0.4	0.1	.....	0.4	2.6	2.3	15.5
19	10 20	4 10	10 21b	4 07a	8.5	9.5	7.5	8.6	0.5	0.1	.....	0.5	4.8	4.2	15.5
20	10 10	4 00	10 11b	3 57a	8.8	9.8	7.7	8.9	0.5	0.1	.....	0.5	4.9	4.4	15.5
21	9 55	3 45	9 56b	3 42a	8.4	9.4	7.4	8.5	0.5	0.1	.....	0.5	4.7	4.2	15.0
22	9 30	3 20	9 31b	3 17a	6.3	7.0	5.5	6.4	0.4	0.1	.....	0.4	3.5	3.2	15.0
23	9 40	3 30	9 41b	3 28a	12.5	14.0	11.0	12.7	0.6	0.2	.....	0.6	7.0	6.2	15.0
24	9 55	3 45	9 56b	3 42a	10.7	12.0	9.4	10.8	0.6	0.1	.....	0.6	6.0	5.4	15.0
25	9 50	3 40	9 51b	3 37a	10.5	11.8	9.2	10.6	0.6	0.1	.....	0.6	5.9	5.2	15.0
26	9 45	3 35	9 46b	3 32a	10.4	11.6	9.2	10.5	0.6	0.1	.....	0.6	5.8	5.2	15.0
27	9 25	3 15	9 26b	3 12a	9.6	10.7	8.4	9.7	0.6	0.1	.....	0.6	5.4	4.8	15.0
28	8 40	2 30	8 41b	2 26a	7.0	7.8	6.2	7.1	0.5	0.1	.....	0.5	3.9	3.5	15.0
29	8 50	2 50	8 49b	2 56a	4.8	5.2	4.5	4.9	0.5	0.1	.....	0.5	2.6	2.4	15.0
30	6 00	12 15	5 59a	12 20b	7.0	7.6	6.6	7.1	0.6	0.1	.....	0.6	3.8	3.5	15.0
31	4 45	11 00	4 44a	11 05b	6.9	7.5	6.5	7.0	0.6	0.1	.....	0.6	3.8	3.4	15.0
32	4 25	10 40	4 24a	10 45b	5.5	6.0	5.2	5.6	0.5	0.1	.....	0.5	3.0	2.8	15.5
33	4 00	10 15	3 59a	10 20b	5.7	6.2	5.4	5.8	0.5	0.1	.....	0.5	3.1	2.8	16.0
34	8 00	1 50	7 59a	1 55a	6.2	6.8	5.8	6.3	0.5	0.1	.....	0.5	3.4	3.1	14.0
35	6 30	0 20	6 29a	0 26a	5.0	5.5	4.7	5.1	0.5	0.1	.....	0.5	2.8	2.5	14.0
36	6 15	0 05	6 14a	0 11a	6.3	6.9	5.9	6.4	0.6	0.1	.....	0.6	3.4	3.2	14.5
37	6 05	12 15	6 04a	12 22b	3.2	3.5	3.0	3.3	0.4	0.1	.....	0.4	1.8	1.6	14.5
38	4 40	10 50	4 39a	10 56b	5.2	5.7	4.9	5.3	0.5	0.1	.....	0.5	2.8	2.6	15.0
39	4 52	10 54	4 51a	11 01b	3.3	3.6	3.1	3.4	0.4	0.1	3.59	0.4	1.8	1.6	15.0
40	6 50	0 40	6 49a	0 45a	7.2	7.8	6.8	7.3	0.6	0.1	.....	0.6	3.9	3.6	15.0
41	9 40	3 30	9 39a	3 35a	5.8	6.3	5.4	5.9	0.5	0.1	.....	0.5	3.2	3.9	15.0
42	10 05	3 55	10 04a	4 00a	6.4	7.0	6.0	6.5	0.6	0.1	.....	0.6	3.5	3.2	15.0
43	9 25	3 15	9 29a	3 12a	7.6	8.8	6.3	7.8	0.2	0.5	.....	0.6	4.4	4.0	15.0
44	9 15	3 05	9 19a	3 02a	10.0	11.6	8.2	10.3	0.3	0.6	.....	0.7	5.8	5.2	14.5
45	9 10	3 00	9 13a	2 57a	10.3	11.9	8.5	10.6	0.3	0.6	.....	0.7	6.0	5.4	14.0
46	9 08	2 55	9 11a	2 52a	10.6	12.3	8.7	10.9	0.3	0.6	.....	0.7	6.2	5.5	14.0
47	9 05	2 50	9 08a	2 47a	10.9	12.6	9.0	11.2	0.3	0.6	.....	0.7	6.3	5.6	13.5
48	9 45	3 35	9 48a	3 32a	12.0	13.9	9.9	12.3	0.3	0.6	.....	0.8	7.0	6.2	13.5
49	9 00	2 50	9 04a	2 47a	8.6	10.0	7.1	8.9	0.3	0.5	.....	0.6	5.0	4.5	13.5
50	8 40	2 30	8 44a	2 27a	7.9	9.2	6.5	8.1	0.2	0.5	.....	0.6	4.6	4.2	13.5
51	7 50	1 40	7 54a	1 37a	5.9	6.8	4.9	6.1	0.2	0.4	.....	0.5	3.4	3.2	13.0
52	7 40	1 30	7 45a	1 26a	5.5	6.4	4.5	5.7	0.2	0.4	.....	0.5	3.2	3.0	13.5
53	7 26	1 55	7 31a	1 51a	5.1	5.9	4.2	5.3	0.2	0.4	11.48	0.5	3.0	2.7	13.5
54	7 15	1 05	7 20a	1 01a	5.6	6.5	4.6	5.8	0.2	0.4	.....	0.5	3.2	3.0	13.5
55	7 05	0 55	7 09a	0 51a	5.8	6.7	4.8	6.0	0.2	0.4	.....	0.5	3.4	3.1	13.5
56	6 55	0 45	6 59a	0 42a	7.7	8.9	6.3	7.9	0.2	0.5	.....	0.6	4.4	4.0	13.5
57	7 20	1 10	7 24a	1 07a	9.3	10.8	7.7	9.6	0.3	0.5	.....	0.7	5.4	4.6	13.5
58	7 35	1 25	7 39a	1 22a	9.5	11.0	7.8	9.8	0.3	0.5	.....	0.7	5.5	5.0	13.5
59	7 05	0 55	7 09a	0 52a	9.2	10.7	7.6	9.5	0.3	0.5	.....	0.7	5.4	4.8	13.5
60	7 10	1 00	7 15a	0 56a	6.2	7.2	5.1	6.4	0.2	0.4	.....	0.6	3.6	3.3	13.5
61	7 05	0 55	7 10a	0 51a	5.3	6.1	4.4	5.5	0.2	0.4	.....	0.5	3.0	2.8	14.0
62	7 00	0 50	7 06a	0 45a	4.3	5.0	3.5	4.5	0.2	0.4	.....	0.5	2.5	2.4	14.0
63	8 10	2 00	8 14a	1 56a	5.7	6.6	4.7	5.9	0.2	0.4	.....	0.5	3.3	3.0	14.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	AUSTRALASIA—Continued.										
	LESSER ISLANDS.										
	Detached islands.	*South.*	*East.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Port Hutt, Chatham Islands	43 47	183 22	12 13	Port Russell	217	− 1 58	− 1 26	−3.2	−0.4	0.45
2	Antipodes Islands	49 41	178 42	11 55	Port Russell	217	− 4 38	− 4 24	−0.6	−0.2	0.95
3	Perseverance Harbor, Campbell I.	52 34	169 12	11 17	Port Russell	217	+ 3 49	+ 4 06	−2.2	−0.2	0.63
4	Port Ross, Auckland Island	50 32	166 17	11 05	Port Russell	217	+ 3 54	+ 4 11	−2.5	−0.3	0.57
5	Norfolk Island	29 03	167 59	11 12	Port Russell	217	− 0 26	− 0 10	−1.0	−0.2	0.85
6	Lord Howe Island	31 34	159 06	10 36	Sydney	221	− 0 27	− 0 26	+1.1	+0.1	1.30
7	Middleton Reef	29 27	159 09	10 37	Sydney	221	− 0 32	− 0 32	+1.0	0.0	1.27
	New Caledonia.										
8	Port Alcmène, Isle of Pines	22 29	167 30	11 10	Apia	209	−11 42	−11 39	+0.4	0.0	1.12
9	Noumea Bay	22 12	166 30	11 06	Apia	209	−11 12	−11 11	0.0	0.0	0.99
10	Port St. Vincent	21 53	166 05	11 04	Apia	209	+10 53	+10 53	0.0	0.0	1.04
11	Port Balad	20 15	164 25	10 58	Apia	209	+11 28	+11 26	+0.3	+0.1	1.08
12	Port Yengen	20 39	164 56	11 00	Apia	209	+11 18	+11 19	+0.4	0.0	1.12
	Loyalty Islands.										
13	Wreck Bay, Lifou Island	20 45	167 05	11 08	Apia	209	+11 43	+11 44	+0.9	+0.1	1.31
	New Hebrides Islands.										
14	Port Sandwich, Mallicolo Island	16 26	167 47	11 11	Apia	209	+ 9 51	+ 9 51	+0.4	+0.2	1.08
15	Havannah Harbor, Efate Island	17 35	168 16	11 13	Apia	209	+10 28	+10 28	−0.2	0.0	0.93
16	Aneityum Island	20 15	169 44	11 19	Apia	209	+10 22	+10 23	0.0	0.0	0.99
	Banks Islands.										
17	Patteson, Vanua Lava Island	13 48	167 31	11 10	Apia	209	+11 53	+11 56	+0.6	0.0	1.19
	Santa Cruz Islands.										
18	Vanikoro Island	11 36	166 55	11 08	Apia	209	+10 03	+10 06	+0.6	0.0	1.19
	Solomon Islands.										
19	Makira Bay, San Christoval I	10 30	161 30	10 46	Apia	209	+11 59	+12 00	0.0	0.0	1.04
20	Vulavu, Isabel Island	8 30	159 40	10 39	Apia	209	+10 14	+10 17	+0.3	+0.1	1.08
21	Gazelle Harbor, Bougainville I	6 35	155 05	10 20	Apia	209	− 7 36	− 7 36	−0.4	0.0	0.85
	New Britain Island.										
22	Blanche Bay	4 13	152 12	10 09	Apia	209	−10 35	−10 37	−1.0	−0.2	0.65
	New Ireland Island.										
23	Holz Haven	2 48	150 57	10 04	Apia	209	− 4 20	− 4 19	−0.8	0.0	0.73
	New Hanover Island.										
24	North Haven	2 26	149 55	10 00	Apia	209	− 4 40	− 4 39	−0.8	0.0	0.73
	Louisiade Archipelago.										
25	Joannet Harbor, Joannet Island	11 12	153 18	10 13	Apia	209	+ 2 40	+ 2 41	+2.5	+0.3	1.85
26	Richards Bay, Woodlark Island	9 03	152 49	10 11	Apia	209	− 0 05	− 0 04	+0.9	+0.1	1.31
	NEW GUINEA, OR PAPUA.										
	Dutch New Guinea.										
27	Dourga Strait	7 27	138 44	9 15	Bombay	249	−12 15	−12 09	+2.2	−0.2	1.29
28	Triton Bay	4 53	133 52	8 55	Nagasaki	173	+ 5 05	+ 5 05	−0.6	−0.2	0.95
29	Segaar Bay	2 40	132 23	8 50	Nagasaki	173	− 1 55	− 1 55	−1.6	−0.4	0.79
30	Cape Spencer, Dampier Strait	0 58	131 15	8 45	Bombay	249	− 5 49	− 5 41	−0.6	−0.6	0.99
	German New Guinea.										
31	Port Constantine	5 30	145 48	9 43	Nagasaki	173	+ 9 23	+ 9 24	−4.2	−0.6	0.40
32	Rook Island	5 33	148 00	9 52	Nagasaki	173	+ 8 53	+ 8 53	−4.4	−0.6	0.39
33	Parsee Point	6 58	147 10	9 49	Nagasaki	173	+ 9 08	+ 9 09	−4.2	−0.6	0.42
	English New Guinea.										
34	Kiriwina, Trobriand Islands	8 28	151 03	10 04	Nagasaki	173	+ 8 52	+ 8 53	−4.4	−0.6	0.39
35	Cape Vogel, Ward Hunt Strait	9 40	150 01	10 00	Nagasaki	173	+ 8 57	+ 8 55	−5.0	−0.6	0.31
36	East Cape, Goschen Strait	10 13	150 54	10 04	Nagasaki	173	− 0 33	− 0 32	−2.6	−0.4	0.65
37	China Strait	10 33	150 41	10 03	Nagasaki	173	+ 0 07	+ 0 07	−1.8	−0.4	0.76
38	Su-a-u Harbor	10 43	150 14	10 01	Nagasaki	173	+ 0 57	+ 0 55	+0.2	−0.2	1.07
39	Port Moresby	9 25	147 07	9 48	Nagasaki	173	+ 0 33	+ 0 34	+0.2	−0.2	1.05
40	Fly River Entrance	8 43	143 26	9 34	Bombay	249	− 1 20	− 1 17	+1.8	−0.2	1.25

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	5 22	0 23	5 24a	0 20a	2.3	2.5	2.1	2.4	0.3	0.2	.....	0.4	1.2	1.2	15.5
2	3 20	9 30	3 22a	9 27a	4.8	5.3	4.3	5.2	0.4	0.2	.....	0.4	2.6	2.5	18.0
3	11 45	5 33	11 47a	5 29a	3.2	3.5	2.9	3.5	0.3	0.2	.....	0.3	1.8	1.7	19.0
4	11 50	5 38	11 52	5 34a	2.9	3.2	2.6	3.2	0.3	0.2	.....	0.3	1.6	1.6	17.5
5	7 30	1 17	7 32a	1 13a	4.3	4.7	3.9	4.6	0.3	0.2	.....	0.4	2.4	2.3	11.5
6	8 20	2 08	8 13a	2 32a	4.4	5.4	3.3	5.4	1.7	0.5	.....	1.8	2.7	2.5	11.0
7	8 15	2 02	8 09a	2 25a	4.3	5.3	3.2	5.3	1.7	0.5	.....	1.7	2.6	2.4	10.5
8	7 55	1 45	7 54a	1 54a	2.9	3.6	2.2	3.0	0.4	0.1	.....	0.4	1.8	1.4	10.0
9	8 25	2 13	8 24a	2 23a	2.5	3.1	1.9	2.6	0.4	0.1	.....	0.4	1.6	1.2	10.0
10	5 40	11 52	5 39a	12 02b	2.7	3.3	2.0	2.8	0.4	0.1	.....	0.4	1.6	1.3	10.0
11	6 15	0 00	6 14a	0 09a	2.8	3.5	2.1	2.9	0.4	0.1	.....	0.4	1.8	1.2	9.5
12	6 05	12 18	6 04a	12 27b	2.9	3.6	2.2	3.0	0.4	0.1	.....	0.4	1.8	1.4	10.0
13	6 30	0 18	6 29a	0 26a	3.4	4.2	2.5	3.5	0.4	0.1	.....	0.4	2.1	1.7	10.0
14	4 38	10 50	3 32b	11 01b	2.8	3.8	1.9	3.1	0.5	1.6	.....	1.7	1.9	1.8	9.5
15	5 15	11 27	4 10b	11 38b	2.4	3.0	1.8	2.7	0.4	1.1	.....	1.3	1.5	1.4	9.5
16	5 10	11 23	4 05b	11 34b	2.5	3.1	1.9	2.9	0.4	1.2	.....	1.4	1.6	1.5	10.0
17	6 40	0 30	6 39a	0 38a	3.1	3.8	2.3	3.2	0.4	0.1	.....	0.4	1.9	1.5	9.5
18	4 50	11 05	4 49a	11 13b	3.1	3.8	2.3	3.2	0.4	0.1	.....	0.4	1.9	1.5	9.0
19	6 45	0 33	6 44a	0 43a	2.7	3.3	2.0	2.8	0.4	0.1	.....	0.4	1.6	1.3	8.5
20	5 00	11 15	4 59a	11 24b	2.8	3.5	2.1	2.9	0.4	0.1	.....	0.4	1.8	1.4	8.5
21	12 00	5 47	11 59a	6 01a	2.2	2.7	1.6	2.2	0.3	0.1	.....	0.3	1.4	1.1	7.0
22	9 00	2 45	8 58a	2 57a	1.7	2.1	1.3	1.7	0.3	0.1	.....	0.3	1.0	0.8	6.5
23	2 50	9 03	2 49b	9 13a	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	6.0
24	2 30	8 43	2 29b	8 53a	1.9	2.4	1.4	1.9	0.3	0.1	.....	0.3	1.2	0.9	6.0
25	9 50	3 38	9 49b	3 44b	4.8	5.9	3.6	4.9	0.5	0.1	.....	0.5	3.0	2.4	7.5
26	7 05	0 53	7 04b	1 01b	3.4	4.2	2.5	3.4	0.4	0.1	.....	0.4	2.1	1.7	7.0
27	11 45	5 33	12 10a	5 32a	11.3	14.0	8.3	20.2	2.5	6.1	.....	6.6	7.0	8.6	4.0
28	0 55	7 08	1 30b	7 06a	5.9	7.3	4.3	12.3	1.8	4.4	.....	4.8	3.6	5.2	2.5
29	6 20	0 07	6 59b	0 05b	4.9	6.0	3.6	10.7	1.6	4.0	.....	4.4	3.0	4.4	2.5
30	5 45	12 00	6 14b	11 59a	8.7	10.7	6.4	16.5	2.2	5.4	.....	5.8	5.4	7.1	2.0
31	5 15	11 28	6 08b	11 26a	2.5	3.1	1.8	6.7	1.2	2.9	.....	3.1	1.6	2.8	5.0
32	4 45	10 57	5 40b	10 54a	2.4	3.0	1.8	6.4	1.1	2.8	.....	3.1	1.5	2.6	5.5
33	5 00	11 13	5 53b	11 11a	2.6	3.2	1.9	6.7	1.2	2.9	.....	3.2	1.6	2.8	5.5
34	4 45	10 58	5 40b	10 55a	2.4	3.0	1.8	6.4	1.1	2.8	.....	3.1	1.5	2.6	6.5
35	4 50	11 00	5 51b	10 57a	1.9	2.4	1.4	5.5	1.0	2.5	.....	2.7	1.2	2.2	6.5
36	7 45	1 33	8 27b	1 31b	4.0	5.0	2.9	9.4	1.5	3.7	.....	3.9	2.5	3.8	7.0
37	8 25	2 12	9 04b	2 10b	4.7	5.8	3.4	10.5	1.6	4.0	.....	4.3	2.9	4.4	7.0
38	9 15	3 00	9 43b	2 58b	6.6	8.1	4.8	13.5	1.9	4.8	.....	5.1	4.0	5.7	7.0
39	8 50	2 38	9 22b	2 36b	6.5	8.0	4.8	13.1	1.8	4.6	.....	4.9	4.0	5.5	6.0
40	10 15	4 00	10 41b	3 59b	10.9	13.5	8.0	19.6	2.4	6.0	.....	6.5	6.8	8.4	5.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	AUSTRALASIA—Continued.										
	AUSTRALIA.										
	North Australia.	South.	East.				*Time meridian, 135° East.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Turtle Point, Victoria River	14 50	129 14	8 37	Bombay	249	− 4 11	− 4 05	+ 6.4	+0.2	1.72
2	Pearce Point	14 23	129 20	8 37	Bombay	249	− 4 26	− 4 26	+10.4	+0.6	2.12
3	Port Keats	14 05	129 37	8 38	Bombay	249	− 5 27	− 5 21	+ 9.4	+0.6	2.02
4	Port Patterson	12 39	130 25	8 42	Bombay	249	− 7 26	− 7 23	+ 4.8	0.0	1.54
5	Port Darwin	12 23	130 37	8 42	Bombay	249	− 6 19	− 6 05	+ 5.0	0.0	1.58
6	Adelaide River Entrance	12 10	131 13	8 45	Bombay	249	− 6 04	− 5 59	+ 4.8	0.0	1.55
7	Port Essington	11 11	132 07	8 48	Bombay	249	− 7 22	− 7 17	+ 1.2	−0.4	1.18
8	Liverpool River Entrance	12 00	134 15	8 57	Bombay	249	− 5 14	− 5 08	+ 0.4	−0.4	1.11
9	Cape Wilberforce	11 54	136 34	9 06	Bombay	249	− 3 41	− 3 35	− 1.6	−0.6	0.90
10	Sir Edward Pellew Islands	15 34	137 01	9 08	Nagasaki	173	− 1 09	− 1 08	− 1.1	−0.3	0.87
	Queensland.						*Time meridian, 150° East.*				
11	Kimberly	17 27	140 56	9 24	Nagasaki	173	+10 14	+10 14	+ 0.8	0.0	1.13
12	Booby Island, Torres Strait	10 36	141 55	9 28	Cape Horn	131	+ 0 15	− 0 30	+ 2.5	+0.5	1.46
13	Cape York, Torres Strait	10 43	142 31	9 30	Cape Horn	131	− 3 07	− 2 52	+ 2.6	+0.6	1.48
14	Murray Islands, Torres Strait	9 57	144 02	9 36	Cape Horn	131	+ 5 02	+ 5 17	+ 4.2	+0.6	1.85
15	Cape Sidmouth	13 24	143 36	9 34	Cape Horn	131	+ 4 49	+ 5 06	+ 4.2	+0.6	1.81
16	Cooktown	15 27	145 15	9 41	Cape Horn	131	+ 5 26	+ 5 43	+ 0.3	+0.5	0.95
17	Cairns Harbor	16 55	145 47	9 43	Cape Horn	131	+ 5 24	+ 5 41	+ 0.9	+0.7	1.05
18	Townsville	19 15	146 50	9 47	Cape Horn	131	+ 5 25	+ 5 43	+ 3.4	+0.6	1.64
19	Bowen, Port Denison	20 01	148 15	9 53	Cape Horn	131	+ 5 34	+ 5 53	+ 3.6	+0.6	1.69
20	Mackay, Pioneer River	21 09	149 16	9 57	Cape Horn	131	+ 6 25	+ 6 43	+10.6	+1.4	3.15
21	Rockhampton, Fitzroy River	23 22	150 32	10 02	Cape Horn	131	+ 7 05	+ 7 23	+ 4.2	+0.6	1.83
22	Bundaberg, Burnett River	24 45	152 18	10 09	Cape Horn	131	+ 4 28	+ 4 43	+ 3.4	+0.6	1.67
23	Brisbane Bar	27 31	153 00	10 12	Cape Horn	131	+ 5 10	+ 5 28	+ 0.7	+0.3	1.09
	New South Wales.										
24	Ballina	28 52	153 33	10 14	Sydney	221	+ 0 07	+ 0 25	− 1.2	−0.2	0.68
25	Southhead, Clarence River	29 25	153 23	10 14	Sydney	221	− 0 40	− 0 42	− 0.2	0.0	0.95
26	Port Macquarie	31 25	152 56	10 12	Sydney	221	+ 0 07	+ 0 06	− 0.2	0.0	0.98
27	Crowdy Head	31 51	152 46	10 11	Sydney	221	+ 0 13	+ 0 14	+ 0.6	0.0	1.18
28	Port Stephens	32 45	152 13	10 09	Sydney	221	− 0 35	− 0 37	+ 1.5	+0.1	1.42
29	Newcastle	32 57	151 44	10 07	Sydney	221	− 0 06	− 0 13	0.0	0.0	1.00
30	SYDNEY	33 52	151 12	10 05	Sydney	221	0 00	0 00	0.0	0.0	1.00
31	Botany Bay	33 59	151 09	10 05	Sydney	221	− 0 46	− 0 36	+ 2.6	+0.2	1.69
32	Ulladulla Harbor	35 22	150 31	10 02	Sydney	221	− 0 23	− 0 23	+ 1.1	+0 1	1.30
33	Montagu Island	36 15	150 14	10 01	Sydney	221	− 0 22	− 0 22	+ 1.0	0.0	1.27
34	Eden, Twofold Bay	37 05	149 55	10 00	Sydney	221	− 0 36	− 0 36	+ 0.9	+0.1	1.24
	Victoria.										
35	Gabo Island	37 35	149 55	10 00	Sydney	221	− 0 01	− 0 01	+ 0.4	−0.2	1.18
36	Entrance to Gippsland lakes	37 48	148 32	9 54	Sydney	221	− 0 15	− 0 15	− 1.1	−0.3	0.77
37	Corner Inlet	38 43	146 35	9 46	Melbourne	225	− 2 21	− 2 31	+ 5.0	+0.2	3.76
38	Venus Bay	38 41	145 46	9 43	Melbourne	225	− 2 31	− 3 11	+ 4.2	+0.2	3.29
39	Port Western	38 31	145 22	9 41	Melbourne	225	− 2 18	− 2 27	+ 6.2	+0.2	4.47
40	Sorrents Back Beach (Ocean Beach)	38 22	144 46	9 39	Melbourne	225	− 3 48	− 4 51	+ 5.0	+0.2	3.82
41	Nepean Point, Port Phillip	38 18	144 39	9 39	Melbourne	225	− 4 00	− 4 10	+ 0.4	0.0	1.29
42	Geelong, Port Phillip	38 07	144 26	9 38	Melbourne	225	− 0 15	− 0 19	+ 1.0	0.0	1.59
43	MELBOURNE (Williamstown)	37 53	144 55	9 40	Melbourne	225	0 00	0 00	0.0	0.0	1.00
44	Warrnambool Harbor, Lady Bay	38 23	142 26	9 30	Melbourne	225	− 1 42	− 1 51	+ 0.8	0.0	1.47
45	Portland Bay	38 20	141 37	9 26	Melbourne	225	− 1 45	− 1 52	+ 0.8	0.0	1 41
	Tasmania and Bass Strait.										
46	Currie Harbor, King Island	39 57	143 51	9 35	Melbourne	225	− 1 39	− 1 46	+ 0.8	0.0	1.47
47	Port Dalrymple	41 03	146 49	9 47	Melbourne	225	− 3 41	− 3 48	+ 6.6	+0.4	4.71
48	Goose Island, Banks Strait	40 19	147 48	9 51	Melbourne	225	− 4 17	− 4 27	+ 5.8	+0.2	4.24
49	Hobart	42 53	147 21	9 49	Melbourne	225	− 6 48	− 6 58	+ 2.1	+0.2	2.18
50	Macquarie Harbor	42 12	145 13	9 41	Melbourne	225	− 7 25	− 7 35	+ 0.8	0.0	1.41
	South Australia.						*Time meridian, 135° East.*				
51	Port Macdonnel	38 04	140 40	9 23	Port Adelaide	229	− 4 46	− 4 51	− 2.0	−0.2	0.59
52	Kingston	36 50	139 51	9 19	Port Adelaide	229	− 4 38	− 4 43	− 2.0	−0.2	0.59
53	Cape Willoughby, Kangaroo I	35 51	138 10	9 13	Port Adelaide	229	− 0 03	− 0 06	− 0.6	0.0	0.84
54	PORT ADELAIDE (Semaphore)	34 51	138 30	9 14	Port Adelaide	229	0 00	0 00	0.0	0.0	1.00
55	Port Wakefield	34 12	138 09	9 13	Port Adelaide	229	+ 0 28	+ 0 24	+ 3.0	+0.8	1.45
56	Port Victoria, Spencer Gulf	34 30	137 28	9 10	Port Adelaide	229	− 1 30	− 1 33	− 1.8	−0.2	0.64
57	Port Pirie, Spencer Gulf	33 06	138 00	9 12	Port Adelaide	229	+ 3 03	+ 3 05	+ 2.0	+0.6	1.30
58	Port Augusta, Spencer Gulf	32 28	137 46	9 11	Port Adelaide	229	+ 4 19	+ 4 21	+ 4.0	+1.0	1.63
59	Coffin Bay	34 26	135 22	9 01	Port Adelaide	229	− 3 16	− 3 14	− 0.8	0.0	0.79
60	Port Eyre	31 57	132 30	8 50	Port Adelaide	229	− 4 15	− 0 23	− 1.2	0.0	0.73

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	7 00	0 48	7 22*b*	0 47*b*	15.1	18.6	11.0	25.3	2.8	7.1	.....	7.6	9.3	11.2	2.5
2	6 45	0 27	7 05*b*	0 26*b*	18.6	23.0	13.6	29.9	3.1	7.9	.....	8.5	11.5	13.2	2.5
3	5 45	11 58	6 05*b*	11 57*a*	17.7	21.9	12.9	28.8	3.1	7.7	.....	8.3	11.0	12.6	2.5
4	3 50	10 00	4 13*b*	9 59*a*	13.5	16.7	9.9	23.2	2.7	6.7	.....	7.2	8.4	10.2	2.5
5	4 57	11 18	5 20*b*	11 17*a*	13.8	17.0	10.0	23.6	2.7	6.8	.....	7.3	8.5	10.3	2.5
6	5 15	11 27	5 38*b*	11 26*a*	13.6	16.8	9.9	23.4	2.7	6.8	.....	7.3	8.4	10.2	2.5
7	4 00	10 12	4 26*b*	10 11*a*	10.3	12.7	7.5	18.8	2.3	5.9	.....	6.3	6.4	8.2	2.5
8	6 17	0 05	6 44*b*	0 04*b*	9.7	12.0	7.1	18.2	2.3	6.0	.....	6.1	6.0	7.6	3.0
9	8 00	1 48	8 30*b*	1 47*b*	7.9	9.8	5.8	15.3	2.1	5.1	.....	5.5	4.9	6.6	3.5
10	7 15	1 03	7 52*b*	1 01*b*	5.4	6.6	4.0	11.5	1.7	4.2	.....	4.6	3.3	4.8	4.0
11	5 30	11 42	6 02*b*	11 41*b*	7.0	8.7	5.1	14.0	2.0	4.8	.....	5.2	4.4	5.9	5.0
12	4 20	10 30	4 15*b*	10 49*b*	6.3	7.8	4.7	7.5	2.1	0.6	.....	2.1	3.9	3.4	4.5
13	1 00	7 10	0 55*b*	7 30*b*	6.4	8.0	4.7	7.6	2.1	0.6	.....	2.2	4.0	3.5	5.0
14	9 15	3 00	9 10*a*	3 17*b*	8.0	9.7	5.9	9.3	2.3	0.7	.....	2.4	4.8	4.4	5.0
15	9 00	2 47	8 55*a*	2 59*b*	7.8	9.6	5.8	9.1	2.3	0.7	.....	2.4	4.8	4.3	5.5
16	9 44	3 31	9 44*a*	3 13*a*	4.1	5.5	2.3	4.7	1.2	0.1	9 43	1.2	2.8	2.1	6.0
17	9 44	3 31	10 04*a*	3 03*a*	4.5	6.4	1.9	6.0	2.1	1.6	12 10	2.6	3.2	2.9	6.5
18	9 50	3 38	9 45*a*	3 57*b*	7.1	8.7	5.3	8.4	2.2	0.7	.....	2.3	4.4	3.9	7.0
19	10 05	3 53	10 00*a*	4 12*b*	7.3	9.0	5.4	8.6	2.2	0.7	.....	2.3	4.5	4.0	7.0
20	11 00	4 48	10 56*a*	5 01*b*	13.6	16.8	10.0	15.3	3.0	0.9	.....	3.1	8.4	7.3	7.5
21	11 45	5 33	11 40*a*	5 50*b*	7.9	9.7	5.9	9.2	2.3	0.7	.....	2.4	4.8	4.0	8.0
22	9 15	3 00	9 10*a*	3 19*b*	7.2	8.9	5.3	8.5	2.2	0.7	.....	2.3	4.4	4.0	8.5
23	10 00	3 48	10 05*a*	3 22*a*	4.7	5.8	3.3	5.5	1.9	0.4	10 46	1.9	2.9	2.4	9.0
24	9 02	3 07	9 08*a*	2 24*a*	2.3	2.8	1.8	3.1	1.6	0.2	9 41	1.6	1.4	1.2	9.5
25	8 15	2 00	8 07*a*	2 27*b*	3.2	4.0	2.4	4.0	1.5	0.4	.....	1.5	2.0	1.8	9.5
26	9 00	2 46	8 53*a*	3 12*b*	3.3	4.1	2.4	4.2	1.5	0.5	.....	1.5	2.0	1.9	9.5
27	9 05	2 58	8 59*a*	3 16*b*	4.0	4.9	3.0	4.9	1.6	0.5	.....	1.6	2.4	2.3	9.5
28	8 15	2 00	8 09*a*	2 23*b*	4.8	5.8	3.6	5.9	1.8	0.6	.....	1.9	2.9	2.7	9.5
29	8 42	2 22	8 32*a*	2 51*b*	3.4	4.2	2.5	4.2	1.6	0.6	7 07	1.6	2.1	1.9	9.5
30	8 46	2 33	8 37*a*	3 00*b*	3.4	4.2	2.6	4.3	1.5	0.5	7 21	1.5	2.1	1.9	9.5
31	8 00	1 57	7 54*a*	2 17*b*	5.7	7.0	4.2	6.8	2.0	0.6	.....	2.0	3.5	3.2	9.5
32	8 20	2 07	8 13*a*	2 31*b*	4.4	5.4	3.3	5.4	1.7	0.5	.....	1.8	2.7	2.5	9.5
33	8 20	2 07	8 13*a*	2 31*b*	4.3	5.3	3.2	5.3	1.7	0.5	.....	1.8	2.6	2.4	10.0
34	8 05	1 52	7 59*a*	2 15*b*	4.2	5.2	3.1	5.2	1.7	0.5	.....	1.7	2.6	2.4	9.5
35	8 40	2 27	8 34*a*	2 50*b*	4.0	4.5	3.4	5.0	1.7	0.5	.....	1.6	2.2	2.1	10.0
36	8 20	2 07	8 12*a*	2 36*b*	2.6	2.9	2.2	3.5	1.4	0.3	.....	1.3	1.4	1.4	9.0
37	0 04	6 16	0 22*a*	6 13*b*	6.4	7.2	5.5	7.8	0.4	2.0	.....	2.0	3.6	3.3	8.5
38	11 46	5 33	12 05*b*	5 30*b*	5.6	6.3	4.8	6.9	0.4	1.8	.....	1.9	3.2	3.7	8.0
39	0 02	6 15	0 19*a*	6 12*b*	7.6	8.5	6.5	9.1	0.4	2.2	.....	2.2	4.2	4.9	8.0
40	10 55	3 49	11 13*b*	3 46*b*	6.5	7.3	5.7	7.7	0.4	2.0	.....	2.0	3.6	4.2	8.0
41	10 43	4 30	11 11*b*	4 26*b*	2.2	2.5	1.9	3.0	0.2	1.2	.....	1.1	1.2	1.7	8.0
42	2 02	8 20	2 29*a*	8 16*b*	2.7	3.0	2.3	3.6	0.2	1.3	.....	1.3	1.5	2.0	7.5
43	2 19	8 41	2 54*a*	8 35*b*	1.7	1.9	1.5	2.3	0.2	1.0	7 46	1.0	1.0	1.3	8.0
44	0 27	6 40	0 57*a*	6 35*b*	2.5	2.8	2.2	3.3	0.2	1.2	.....	1.3	1.4	1.8	7.0
45	0 20	6 35	0 48*a*	6 31*b*	2.4	2.7	2.1	3.2	0.2	1.2	.....	1.2	1.4	1.8	6.5
46	0 35	6 50	1 05*a*	6 45*b*	2.5	2.8	2.2	3.3	0.2	1.2	.....	1.3	1.4	1.8	7.5
47	11 10	5 00	11 25*b*	4 58*b*	8.0	9.0	6.9	9.5	0.4	2.2	.....	2.2	4.5	5.1	9.0
48	10 38	4 25	10 55*b*	4 22*b*	7.2	8.1	6.2	8.7	0.4	2.1	.....	2.1	4.0	4.6	9.0
49	8 05	1 52	8 28*b*	1 48*b*	3.7	4.2	3.2	4.7	0.3	1.5	.....	1.5	2.1	2.6	9.5
50	7 20	1 07	7 48*b*	1 03*b*	2.4	2.7	2.1	3.2	0.2	1.2	.....	1.2	1.4	1.8	8.5
51	11 52	5 40	11 32*b*	7 06*a*	2.7	4.2	0.2	2.8	2.1	0.6	.....	2.2	2.1	1.2	6.0
52	11 56	5 44	11 56*b*	7 10*a*	2.7	4.2	0.2	2.8	2.1	0.6	.....	2.2	2.1	1.2	6.0
53	4 00	10 15	3 44*a*	11 26*a*	3.8	5.8	0.3	3.9	2.4	0.7	.....	2.6	2.9	1.6	5.0
54	4 04	10 22	3 53*a*	11 03*a*	4.5	6.3	0.9	5.6	2.7	0.8	2 53	2.8	3.2	2.4	5.0
55	4 31	10 45	4 18*a*	11 37*a*	6.6	10.2	0.6	6.7	3.2	1.0	.....	3.4	5.1	2.8	5.0
56	2 30	8 45	2 13*a*	10 05*a*	2.9	4.5	0.3	3.0	2.1	0.6	.....	2.2	2.2	1.3	5.0
57	7 05	1 00	6 53*a*	1 57*b*	5.9	9.0	0.5	5.9	3.0	1.0	.....	3.2	4.5	2.6	5.0
58	8 20	2 15	8 17*a*	3 07*b*	7.4	11.4	0.7	7.5	3.4	1.0	.....	3.6	5.7	3.3	5.0
59	0 35	6 55	0 18*a*	7 28*b*	3.6	5.5	0.3	3.7	2.4	0.7	.....	2.5	2.8	1.5	4.0
60	11 50	9 35	11 32*b*	10 52*a*	3.3	5.1	0.3	3.4	2.3	0.7	.....	2.4	2.6	1.4	3.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	AUSTRALASIA—Continued.										
	AUSTRALIA—continued.										
	Western Australia.	*South.*	*East.*				*Time meridian, 120° East.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Princess Royal Har., K. Geo. Sd	35 08	118 00	7 52	Batavia	197	+12 52	+10 44	+ 0.2	+0.4	0.88
2	Albany, King George Sound	35 01	117 54	7 52	Batavia	197	+12 30	+ 9 07	+ 0.6	+0.4	1.04
3	Freemantle, Swan River Entrance	32 03	115 45	7 43	Batavia	197	+11 17	+ 9 41	0.0	+0.4	0.84
4	Champion Bay	28 47	114 35	7 38	Batavia	197	+10 30	+ 7 37	+ 1.0	+0.4	1.20
5	Port Walcott	20 39	117 18	7 49	Bombay	249	+ 0 09	+ 0 07	+ 5.6	0.0	1.63
6	Collier Bay	16 23	124 25	8 18	Bombay	249	− 0 04	− 0 13	+20.7	+1.7	3.17
7	Cambridge Bay	15 00	128 10	8 33	Bombay	249	+ 8 24	+ 8 27	+10.2	+0.6	2.10
	ASIA (SOUTH COAST).										
	INDIA.										
	Bay of Bengal, east coast.	*North.*					*Local time.*				
8	Mergui	12 26	98 36	6 34	Rangoon	233	+ 6 14	+ 5 20	+ 1.0	+0.2	1.06
9	Reef Island, Tavoy River Entr.	13 36	98 13	6 33	Rangoon	233	+ 6 24	+ 5 30	+ 1.2	0.0	0.91
10	Yé, Yé River	15 15	97 53	6 32	Rangoon	233	+ 7 19	+ 6 25	+ 1.0	+0.2	1.06
11	Amherst, Moulmein River	16 05	97 34	6 30	Rangoon	233	+10 11	+ 9 59	+ 2.0	+0.4	1.13
12	Moulmein, Moulmein River	16 29	97 37	6 30	Calcutta	237	+ 1 41	+ 1 42	+ 0.4	0.0	1.06
13	Elephant Point, Rangoon River	16 30	96 18	6 25	Rangoon	233	− 0 57	− 1 12	+ 1.0	+0.2	1.07
14	RANGOON, Rangoon River	16 46	96 12	6 25	Rangoon	233	0 00	0 00	0.0	0.0	1.00
15	Bassein River Entrance	16 00	94 20	6 17	Rangoon	233	− 1 21	− 1 20	+ 1.7	+0.3	1.11
16	Akyab	20 08	92 54	6 12	Calcutta	237	− 4 11	− 5 39	− 3.0	−0.6	0.69
17	Chittagong	22 20	91 50	6 07	Calcutta	237	− 0 23	− 1 10	+ 1.8	+0.2	1.18
	Bay of Bengal, west coast.										
18	Dublat, Hoogly River	21 38	88 06	5 52	Calcutta	237	− 3 52	− 5 12	+ 2.4	+0.4	1.24
19	Diamond Harbor, Hoogly River	22 11	88 12	5 53	Calcutta	237	− 2 28	− 2 48	+ 4.0	+0.8	1.40
20	CALCUTTA (Kidderpore), Hoogly R.	22 32	88 22	5 53	Calcutta	237	0 00	0 00	0.0	0.0	1.00
21	False Point	20 23	86 47	5 47	Madras	241	+ 0 39	+ 0 33	+ 3.2	+0.4	2.20
22	Vizagapatam	17 41	83 17	5 33	Madras	241	+ 0 07	+ 0 08	+ 1.1	+0.1	1.44
23	Cocanada	16 56	82 15	5 29	Madras	241	+ 0 01	+ 0 09	+ 1.1	0.0	1.48
24	MADRAS	13 05	80 15	5 21	Madras	241	0 00	0 00	0.0	0.0	1.00
25	Negapatam	10 46	79 51	5 19	Madras	241	− 0 04	+ 0 11	− 1.0	−0.2	0.68
26	Pamban Pass, Rámesvaram Island	9 16	79 09	5 17	Colombo	245	− 0 18	− 0 13	0.0	0.0	1.00
27	Tuticorin	8 48	78 09	5 13	Colombo	245	− 0 03	+ 0 02	+ 0.8	+0.2	1.56
	Bay of Bengal Islands.										
28	Trincomalee, Ceylon	8 33	81 13	5 25	Colombo	245	− 6 10	− 6 05	0.0	0.0	1.04
29	Point de Galle, Ceylon	6 02	80 13	5 21	Colombo	245	+ 0 07	+ 0 18	− 0.1	+0.1	0.92
30	COLOMBO, Ceylon	6 56	79 50	5 19	Colombo	245	0 00	0 00	0.0	0.0	1.00
31	Port Blair, Andaman Islands	11 41	92 45	6 11	St. Johns	47	+ 2 38	+ 2 36	+ 2.6	+0.6	1.76
32	Port Cornwallis, Andaman Islands	13 19	93 00	6 12	St. Johns	47	+ 2 48	+ 2 46	+ 4.4	+1.0	2.39
33	Nankauri Harbor, Nicobar Islands	8 03	93 30	6 14	St. Johns	47	+ 2 03	+ 2 01	+ 4.2	+1.0	2.31
	Arabian Sea, east coast.										
34	Quilon	8 54	76 37	5 06	Yokohama	169	− 4 39	− 4 46	− 2.2	−0.8	0.74
35	Cochin	9 58	76 15	5 05	Yokohama	169	− 5 49	− 5 56	− 2.6	−0.8	0.60
36	Beypore	11 10	75 48	5 03	Yokohama	169	− 6 00	− 6 02	− 2.0	−0.6	0.76
37	Mangalore	12 52	74 50	4 59	Yokohama	169	− 6 31	− 6 33	+ 1.3	−0.3	1.88
38	Kárwár	14 48	74 06	4 56	Karachi	253	+ 0 38	+ 0 22	− 2.0	−0.2	0.69
39	Goa, or Mormugôa	15 25	73 48	4 55	Karachi	253	+ 0 18	+ 0 09	− 1.8	−0.2	0.72
40	BOMBAY, Apollo Bandar	18 55	72 50	4 51	Bombay	249	0 00	0 00	0.0	0.0	1.00
41	Bhávnagar	21 48	72 09	4 49	Shanghai	181	+ 4 22	+ 3 19	+19.6	+3.8	3.23
42	Port Albert Victor (Káthiwadar)	20 58	71 33	4 46	Karachi	253	+ 4 10	+ 3 42	+ 1.8	+0.6	1.23
43	Okha Point and Bet Harbor	22 28	69 05	4 36	Bombay	249	+ 0 39	+ 0 31	− 0.9	−0.3	0.94
44	Navánár Point, Gulf of Cutch	22 44	69 43	4 39	Bombay	249	+ 1 45	+ 1 56	+ 3.9	−0.3	1.48
45	Hansthal Point, Gulf of Cutch	22 56	70 21	4 41	Bombay	249	+ 2 23	+ 3 12	+ 5.2	−0.4	1.65
46	KARACHI	24 47	66 58	4 28	Karachi	253	0 00	0 00	0.0	0.0	1.00
	Arabian Sea Islands.										
47	Suadiva Atoll, Maldive Islands	0 34	73 27	4 54	Karachi	253	+ 2 59	+ 2 54	− 3.0	−0.4	0.52
48	S. Maiè Atoll, Maldive Islands	4 05	73 30	4 54	Karachi	253	+ 2 29	+ 2 24	− 3.9	−0.5	0.40
49	Malcolm Atoll, Maldive Islands	6 17	72 33	4 50	Karachi	253	+ 0 04	− 0 01	− 4.0	−0.4	0.38
50	Minikoi Light	8 16	73 01	4 52	Karachi	253	+ 1 11	+ 1 14	− 4.2	−0.6	0.34
51	Kiltan Island, Laccadive Islands	11 29	73 00	4 52	Karachi	253	+ 0 04	− 0 01	− 0.8	0.0	0.87
52	Cherbaniani Reef, Laccadive Ids	12 20	71 52	4 47	Karachi	253	− 0 26	− 0 31	− 1.0	0.0	0.85
	BALUCHISTAN.										
53	Sunmiyani Harbor	25 25	66 35	4 26	Karachi	253	− 1 25	− 1 25	+ 0.7	+0.1	1.12
54	Gwadar Bay	25 10	62 20	4 09	Karachi	253	− 0 54	− 0 54	+ 0.6	+0.2	1.10

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	[11 43]	[5 18]	10 17b	8 11a	[0.6]	[0.9]	[0.2]	2.2	.....	.....	21 57	2.1	1.1	1.0	4.0
2	[10 58]	[4 40]	9 55b	6 34a	[0.5]	[1.2]	[0.1]	2.6	.....	.....	.....	2.6	1.3	1.3	4.0
3	[10 16]	[3 43]	8 32b	6 58a	[0.4]	[0.7]	[0.0]	2.1	.....	.....	20 13	2.1	1.0	1.1	4.0
4	[8 50]	[2 30]	7 40b	4 49a	[0.6]	[1.5]	[0.1]	3.0	.....	.....	.....	3.0	1.5	1.5	3.0
5	11 30	5 10	11 52b	5 09a	14.3	17.6	10.4	24.2	2.8	6.9	.....	7.4	8.8	10.6	0.0
6	11 35	5 20	11 51b	5 19a	27.8	34.3	20.3	41.7	3.8	9.6	.....	10.4	17.2	18.7	2.0 E
7	8 05	1 50	8 25b	1 49a	18.4	22.7	13.4	29.6	3.1	7.7	.....	8.5	11.4	13.1	2.5 E
															East.
8	10 40	4 10	10 34a	4 18b	13.0	18.0	6.9	12.2	1.6	1.3	.....	2.0	9.0	6.0	3.0
9	10 50	4 20	10 43a	4 29b	11.2	15.6	5.9	10.4	1.5	1.2	.....	1.9	7.8	5.2	3.0
10	11 45	5 15	11 39a	5 23b	13.0	18.1	6.9	12.2	1.6	1.3	.....	2.0	9.0	6.0	3.0
11	2 12	8 49	2 06b	8 57b	13.9	19.2	7.4	13.0	1.6	1.4	11 52	2.1	9.6	6.5	3.0
12	3 07	10 49	3 06a	11 01a	8.6	11.7	5.0	8.3	1.4	0.3	3 11	1.4	5.8	4.1	3.0
13	3 29	10 03	3 22a	10 11a	13.2	18.1	7.3	12.7	1.7	1.4	0 51	2.2	9.0	6.3	3.0
14	4 26	11 15	4 20a	11 24a	12.3	16.9	7.0	12.1	1.6	1.1	2 15	2.0	8.4	6.1	3.0
15	3 05	9 55	3 00a	10 03a	13.7	18.7	7.8	13.9	1.7	1.1	.....	2.1	9.4	6.6	3.0
16	9 40	3 28	9 46b	3 13b	5.6	7.6	3.0	5.6	1.2	0.5	23 19	1.3	3.8	2.7	3.0
17	1 02	7 56	1 02a	7 44b	9.6	13.1	5.6	9.8	1.8	0.2	1 12	1.8	6.6	4.6	3.0
18	9 58	3 54	10 01b	3 46b	10.1	14.1	5.1	9.5	1.3	0.5	23 36	1.4	7.0	4.6	3.0
19	11 22	6 18	11 23b	6 10a	11.4	15.9	5.9	10.5	1.4	0.3	12 19	1.5	8.0	5.1	3.0
20	1 25	9 06	1 26a	8 56b	8.1	11.2	4.4	7.5	1.2	0.2	2 36	1.2	5.6	3.7	3.0
21	9 21	3 00	9 27b	2 46b	4.9	6.8	2.6	5.1	1.1	0.5	23 13	1.2	3.4	2.5	3.0
22	8 48	2 34	8 58b	2 16b	3.2	4.4	1.8	3.5	0.9	0.5	23 03	1.0	2.2	1.7	2.0
23	8 42	2 35	8 52b	2 18b	3.3	4.5	1.9	3.6	0.9	0.5	22 59	1.0	2.2	1.6	2.0
24	8 41	2 26	8 52b	2 07b	2.2	3.1	1.2	2.6	0.7	0.3	22 51	0.8	1.6	1.2	1.0
25	8 37	2 37	8 49b	2 14b	1.5	2.1	0.9	1.8	0.6	0.3	22 53	0.6	1.0	0.9	1.0
26	1 37	7 36	1 53a	6 54b	1.4	2.0	0.5	1.6	0.8	0.3	3 07	0.8	1.0	0.7	0.5
27	1 52	7 51	2 05a	7 16b	2.1	3.0	0.8	2.4	1.0	0.4	.....	1.1	1.5	1.1	0.5
28	8 10	1 44	8 26b	1 01b	1.4	2.0	0.5	1.7	0.8	0.3	.....	0.9	1.0	0.8	1.0
29	2 02	8 07	2 11a	7 41b	1.2	1.9	0.4	1.2	0.4	0.2	3 19	0.4	1.0	0.6	0.5
30	1 55	7 49	2 09a	7 14b	1.4	2.0	0.4	1.5	0.6	0.3	3 21	0.7	1.0	0.7	0.5
31	9 40	3 27	9 38b	3 45a	4.4	6.3	2.1	4.6	1.1	0.2	21 33	1.1	3.2	2.0	2.5
32	9 50	3 37	9 49b	3 52a	6.0	8.6	2.9	6.3	1.3	0.2	.....	1.3	4.3	2.8	2.5
33	9 05	2 52	9 04b	3 07a	5.8	8.3	2.8	6.1	1.3	0.2	.....	1.3	4.2	2.7	2.0
34	0 18	6 16	1 19a	5 58b	2.0	2.5	1.3	3.2	0.7	1.9	.....	2.1	2.2	1.9	0.5
35	11 33	5 06	12 39b	4 44b	1.6	2.1	1.0	2.7	0.6	1.7	3 44	1.9	1.0	1.6	0.5
36	11 21	4 59	12 20b	4 41b	2.1	2.7	1.4	3.4	0.7	2.0	3 42	2.1	1.4	2.0	0.5
37	10 50	4 28	11 28b	4 16b	5.1	6.5	3.4	7.1	1.1	3.1	.....	3.4	3.2	4.0	0.5
38	10 34	4 11	11 24b	4 00b	3.8	5.0	2.4	5.4	0.7	3.0	3 13	3.1	2.5	3.2	0.5
39	10 34	4 10	11 24b	4 01b	4.0	5.2	2.5	5.5	0.7	3.1	3 17	3.2	2.6	3.4	0.5
40	11 26	5 08	11 52b	4 54b	8.8	12.0	4.9	10.8	1.0	3.7	3 11	4.2	6.0	5.8	1.0
41	4 27	11 18	4 33a	11 01b	23.0	29.8	15.1	25.6	6.3	2.3	5 57	6.7	14.9	11.9	1.0
42	2 01	7 43	2 27a	7 09b	6.8	9.5	3.7	9.3	3.7	2.9	4 31	4.8	4.8	4.5	1.0
43	12 05	5 39	12 33b	5 25b	8.2	10.8	5.2	10.6	2.0	3.8	3 46	4.3	5.4	5.7	1.0
44	0 46	7 04	1 02a	6 51b	13.0	15.5	9.8	15.4	2.8	3.6	4 24	4.5	7.8	7.9	1.0
45	1 24	8 20	1 41a	8 06b	14.5	16.8	11.6	16.5	2.5	3.4	5 20	4.6	8.4	8.5	1.0
46	10 15	4 00	11 02b	3 55b	5.6	7.3	3.4	7.4	0.7	3.9	3 11	3.9	3.6	4.4	1.0
															West.
47	0 50	6 55	1 34a	6 36b	2.9	3.8	1.8	4.3	1.0	2.1	.....	2.6	1.9	2.4	1.0
48	0 20	6 25	1 10a	6 04b	2.2	2.9	1.4	3.4	0.8	1.8	.....	2.2	1.4	1.9	0.5
49	10 20	4 00	11 12b	3 38b	2.1	2.7	1.3	3.3	0.8	1.8	.....	2.2	1.4	1.8	0.5
50	11 27	5 15	12 22b	4 51b	1.9	2.5	1.2	3.0	0.8	1.7	3 50	2.1	1.2	1.7	0.0
51	10 20	4 00	10 54b	3 46b	4.8	6.3	3.0	6.5	1.2	2.6	.....	3.3	3.2	3.5	0.0
52	9 50	3 30	10 26b	3 15b	4.7	6.2	2.9	6.5	1.2	2.6	.....	3.3	3.1	3.4	0.0
															East.
53	8 50	2 35	9 35b	2 30b	6.2	8.1	3.8	8.2	0.8	4.1	.....	4.2	4.0	4.8	1.0
54	9 20	3 05	10 08b	2 59b	6.1	8.1	3.7	8.3	0.7	4.5	.....	4.5	4.0	5.0	1.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	ASIA (SOUTH COAST)—Continued.										
	PERSIA.										
	Persian Gulf.	*North.* ° ′	*East.* ° ′	*h. m.*			*Local time.* *h. m.*	*h. m.*	*Mean Low Water Springs.* *feet.*	*feet.*	
1	Jashak Bay	25 40	57 50	3 51	Karachi	253	− 0 54	− 0 54	+ 0.4	+0.2	1.06
2	Kishm	26 56	56 15	3 45	Karachi	253	+ 0 36	+ 0 36	+ 3.8	+0.6	1.57
3	Jezirat Kais	26 32	53 54	3 36	Hongkong	189	− 9 45	− 8 33	+ 1.6	−0.4	1.60
4	Bushire	29 00	50 52	3 23	Hongkong	189	− 2 03	− 1 35	− 2.0	−0.8	0.64
5	Euphrates River Entrance	29 51	48 45	3 15	Hongkong	189	+ 2 06	+ 3 13	+ 4.2	−0.2	2.30
	ARABIA.										
	Persian Gulf.										
6	Kuweit	29 24	47 58	3 12	Hongkong	189	+ 3 16	+ 3 30	+ 3.2	−0.2	2.03
7	Menama, Bahrein Harbor	26 16	50 39	3 23	Hongkong	189	− 4 00	− 3 43	+ 1.4	−0.4	1.57
8	Maskat (Muscat)	23 37	58 35	3 54	Karachi	253	− 0 44	− 0 39	− 1.1	−0.1	0.82
	Outer coast.										
9	Ras-al-Hadd	22 34	59 50	3 59	Karachi	253	− 0 59	− 0 56	+ 1.4	+0.2	1.21
10	Masira Island	20 28	58 57	3 56	Karachi	253	− 0 29	− 0 25	+ 2.0	+0.4	1.30
11	Merbat	17 00	54 41	3 39	Aden	257	+ 1 00	+ 0 56	+ 1.9	+0.3	1.44
12	Makalla	14 32	49 06	3 16	Aden	257	+ 0 30	+ 0 25	+ 1.7	+0.3	1.38
13	ADEN	12 47	44 59	3 00	Aden	257	0 00	0 00	0.0	0.0	1.00
	Red Sea, east coast.										
14	Mocha or Mokha	13 19	43 12	2 53	Aden	257	+ 3 56	+ 3 52	− 0.4	0.0	0.91
15	Loheiya	15 45	42 40	2 51	Aden	257	+ 5 51	+ 5 46	− 1.7	−0.3	0.61
16	Jidda	21 28	39 08	2 37	Aden	257	+ 8 07	+ 8 02	− 2.4	−0.4	0.41
17	Hassani Island	25 00	37 00	2 28	Aden	257	+10 22	+10 17	− 1.4	−0.2	0.64
18	Akabah	29 30	35 00	2 20	Aden	257	−10 13	−10 17	− 0.8	0.0	0.80
	AFRICA (EAST COAST).										
	EGYPT, ABYSSINIA, ETC.										
	Red Sea, west coast.										
19	Suez	29 58	32 32	2 10	Aden	257	− 9 27	− 9 32	+1.7	+0.3	1.38
20	Zafarana Light	29 06	32 40	2 11	Aden	257	− 9 32	− 9 36	+0.6	+0.2	1.13
21	Ras Gharib	28 21	33 06	2 12	Aden	257	− 9 37	− 9 41	−2.8	−0.4	0.30
22	Brothers Islands	26 19	34 51	2 19	Aden	257	+11 17	+11 13	−2.4	−0.4	0.41
23	Suakin	19 06	37 19	2 29	Aden	257	+ 6 47	+ 6 42	−2.8	−0.4	0.36
24	Massaua or Massowah	15 37	39 27	2 38	Aden	257	+ 5 22	+ 5 17	−0.7	−0.1	0.83
25	Perim Island, Bab el Mandeb Str.	12 38	43 24	2 54	Aden	257	+ 0 01	− 0 03	+2.0	+0.4	1.46
	SOMALILAND.										
26	Zeila	11 24	43 28	2 54	Aden	257	− 0 19	− 0 23	+3.1	+0.5	1.71
27	Cape Guardafui or Ras Asir	11 53	51 15	3 25	Aden	257	− 1 50	− 1 55	+1.0	+0.2	1.24
28	Sokotra Island	12 40	53 55	3 36	Aden	257	− 0 45	− 0 25	+2.4	+0.4	1.55
29	Warsheik Road	2 36	46 11	3 05	Aden	257	− 3 29	− 3 34	+2.6	+0.4	1.60
30	Brava	1 08	44 04	2 56	Aden	257	− 3 34	− 3 39	+2.4	+0.4	1.55
	ZANZIBAR.	*South.*									
31	Juba	0 14	42 38	2 51	Aden	257	− 3 32	− 3 37	+3.6	+0.6	1.85
32	Port Durnford	1 13	41 55	2 48	Aden	257	− 3 19	− 3 24	+6.0	+0.8	2.40
33	Malindi	3 07	40 11	2 41	Aden	257	− 3 48	− 3 52	+6.3	+0.9	2.49
34	Zanzibar	6 09	39 11	2 37	Aden	257	− 3 43	− 3 48	+8.4	+1.2	2.96
35	Lindi River Entrance	10 00	39 44	2 39	Aden	257	− 3 53	− 3 57	+5.2	+0.8	2.24
	MOZAMBIQUE.										
36	Cape Delgado	10 41	40 39	2 43	Calcutta	237	+ 2 40	+ 1 11	−0.2	+0.2	0.96
37	Mozambique Harbor	14 58	40 44	2 43	Calcutta	237	+ 2 41	+ 1 12	+0.3	+0.3	1.00
38	Zambezi River Entrance	18 47	36 30	2 26	Calcutta	237	+ 2 57	+ 1 28	+1.8	+0.6	1.15
39	Innamban River Entrance	23 45	35 32	2 22	Calcutta	237	+ 3 12	+ 1 43	−0.3	+0.1	0.95
40	English River, Delagoa Bay	25 59	32 36	2 10	Calcutta	237	+ 3 52	+ 2 23	+0.4	+0.4	1.01
	ISLANDS IN THE INDIAN OCEAN.										
	Madagascar.										
41	Diego Suarez Bay	12 15	49 30	3 18	Calcutta	237	+ 2 05	+ 0 36	−4.2	−0.6	0.54
42	Port Choiseul, Antongil Bay	15 29	49 50	3 19	Calcutta	237	+ 2 25	+ 0 56	−5.3	−0.7	0.43
43	Tamatave	18 08	49 26	3 18	Calcutta	237	+ 2 40	+ 1 11	−3.6	−0.4	0.62
44	Fort Dauphin	25 01	47 01	3 08	Calcutta	237	+ 2 56	+ 1 27	−5.6	−0.8	0.39
45	St. Augustine Bay	23 34	43 46	2 55	Calcutta	237	+ 4 21	+ 1 52	−1.4	0.0	0.84
46	Bembatooka Bay	15 50	46 21	3 05	Calcutta	237	+ 2 56	+ 2 28	−0.4	0.0	0.92

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	East. °
1	9 20	3 05	10 09b	2 59b	5.9	7.8	3.6	8.1	0.7	4.4	.....	4.5	3.9	4.8	0.5
2	10 50	4 35	11 30b	4 30b	8.7	11.6	5.3	11.3	0.8	5.3	.....	5.4	5.8	6.6	0.5
3	0 30	6 40	0 17b	7 37b	5.3	6.6	3.8	8.0	4.5	1.2	.....	4.7	3.3	3.4	0.0
4	7 12	1 13	6 51b	2 44b	2.1	2.6	1.5	3.8	2.8	0.7	18 24	3.0	1.3	1.5	0.0
5	11 20	6 00	11 09b	6 48a	7.6	9.4	5.4	10.9	5.4	1.4	.....	5.7	4.7	4.7	0.0
															West.
6	0 05	6 17	— 0 07a	7 07a	6.7	8.3	4.8	9.7	4.9	1.3	.....	5.3	4.2	4.2	0.0
7	5 15	11 30	5 01b	12 23b	5.2	6.4	3.7	7.9	4.4	1.2	.....	4.7	3.2	3.4	0.5
8	9 30	3 20	10 26b	3 13b	4.6	6.0	2.8	6.5	0.6	3.9	2 44	3.9	3.0	3.9	0.0
9	9 15	3 03	10 02b	2 57b	6.7	8.9	4.1	9.0	0.7	4.7	.....	4.8	4.4	5.4	0.0
10	9 45	3 32	10 29b	3 27b	7.2	9.6	4.4	9.7	0.8	4.9	.....	4.9	4.8	5.7	0.0
11	8 50	2 38	7 49a	2 50b	5.2	7.0	2.9	7.6	1.0	4.8	.....	4.8	3.5	4.6	1.0
12	8 20	2 07	7 18a	2 19b	5.0	6.8	2.8	7.4	1.0	4.7	.....	4.7	3.4	4.5	2.0
13	7 49	1 41	6 36a	1 55b	3.6	4.9	2.0	5.7	0.9	4.0	2 32	4.0	2.4	3.5	3.0
14	11 45	5 33	10 29a	5 48b	3.3	4.5	1.9	5.2	0.8	3.8	.....	3.8	2.2	3.2	3.5
15	1 15	7 27	— 0 18b	7 45b	2.2	2.9	1.2	3.7	0.7	3.1	.....	3.1	1.4	2.4	3.0
16	3 30	9 42	1 36b	10 04b	1.5	2.0	0.8	3.0	0.6	2.6	.....	2.6	1.0	1.8	3.0
17	5 45	11 57	4 13b	12 15b	2.3	3.1	1.3	3.9	0.7	3.2	.....	3.2	1.6	2.5	3.0
18	10 00	3 48	8 38b	4 04a	2.9	3.9	1.6	4.7	0.8	3.6	.....	3.6	2.0	3.0	3.0
19	10 45	4 32	9 43b	4 44a	5.0	6.8	2.8	7.4	1.0	4.7	.....	4.7	3.4	4.5	3.5
20	10 40	4 28	9 31b	4 42a	4.1	5.5	2.3	6.3	0.9	4.3	.....	4.3	2.8	3.9	3.5
21	10 35	4 23	8 23b	4 49a	1.1	1.5	0.6	2.2	0.5	2.2	.....	2.2	0.8	1.5	3.5
22	6 40	0 28	4 46b	0 50a	1.5	2.0	0.8	2.3	0.6	2.6	.....	2.6	1.0	1.8	3.5
23	2 10	8 22	0 08b	8 46b	1.3	1.7	0.7	2.7	0.5	2.4	.....	2.4	0.8	1.7	3.5
24	0 45	6 57	— 0 36b	7 13b	3.0	4.0	1.7	4.7	0.8	3.7	.....	3.7	2.0	3.1	4.0
25	7 50	1 38	6 51a	1 50b	5.3	7.2	3.0	7.8	1.1	4.9	.....	4.9	3.6	4.7	3.5
26	7 30	1 18	6 34a	1 29b	6.2	8.5	3.5	9.0	1.2	5.3	.....	5.3	4.2	5.2	3.5
27	6 00	12 12	4 54a	12 25a	4.5	6.1	2.5	6.8	1.0	4.5	.....	4.5	3.0	4.0	2.5
28	7 05	1 17	6 06a	1 29b	5.6	7.5	3.1	8.2	1.1	5.0	.....	5.0	3.8	4.8	2.0
29	4 20	10 32	3 23a	10 43a	5.8	7.8	3.3	8.4	1.1	5.0	.....	5.0	3.9	4.9	4.5
30	4 15	10 27	3 16a	10 39a	5.6	7.5	3.1	8.2	1.1	5.0	.....	5.0	3.8	4.8	5.5
31	4 17	10 29	3 24a	10 40a	6.7	9.0	3.8	9.4	1.2	5.4	.....	5.4	4.5	5.5	6.0
32	4 30	10 42	3 43a	10 51a	8.7	11.7	4.9	11.9	1.4	6.2	.....	6.2	5.8	7.0	6.5
33	4 00	10 13	3 14a	10 22a	9.0	12.1	5.0	12.2	1.4	6.3	.....	6.3	6.0	7.1	7.5
34	4 05	10 17	3 23a	10 25a	10.7	14.5	6.0	14.2	1.5	6.9	.....	6.9	7.2	8.1	8.5
35	3 55	10 08	3 06a	10 18a	8.1	10.9	4.5	11.2	1.3	6.0	.....	6.0	5.4	6.5	10.0
36	3 59	10 11	4 00a	10 04a	7.8	11.3	3.3	9.0	0.6	0.2	.....	0.7	5.6	4.5	10.5
37	4 00	10 12	4 01a	10 06a	8.1	11.8	3.4	9.3	0.6	0.2	.....	0.7	5.9	4.6	12.0
38	4 15	10 27	4 16a	10 21a	9.3	13.5	3.9	10.6	0.7	0.2	.....	0.7	6.8	5.2	16.0
39	4 30	10 42	4 31a	10 36a	7.7	11.0	3.2	8.9	0.6	0.2	.....	0.6	5.5	4.4	19.5
40	5 10	11 22	5 11a	11 16a	8.2	11.9	3.4	9.5	0.7	0.2	.....	0.7	6.0	4.7	22.5
41	3 25	9 37	3 27a	9 29a	4.4	6.3	1.9	5.3	0.5	0.1	.....	0.5	3.2	2.5	8.0
42	3 45	9 57	3 47a	9 49a	3.5	5.1	1.5	4.2	0.4	0.1	.....	0.4	2.6	2.1	9.5
43	4 00	10 12	4 02a	10 05a	5.0	7.3	2.1	5.9	0.5	0.1	.....	0.5	3.6	2.8	11.0
44	4 15	10 27	4 17a	10 18a	3.2	4.7	1.3	3.9	0.4	0.1	.....	0.4	2.4	1.9	17.0
45	5 40	11 52	5 41a	11 45a	6.8	9.8	2.9	8.0	0.6	0.2	.....	0.6	4.9	4.0	17.0
46	4 15	11 28	4 16a	11 22a	7.5	10.9	3.2	8.7	0.6	0.2	.....	0.6	5.4	4.3	11.0

Number.	Station	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	AFRICA (EAST COAST)—Cont'd.										
	ISLANDS IN THE INDIAN OCEAN—continued.										
	Lesser Islands.	*South.*	*East.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Maroni Bay, Comoro Islands	11 41	43 21	2 53	Singapore	193	+7 00	+7 04	+1.4	+0.4	1.17
2	Zaudzi, Mayotta Island	12 50	45 16	3 01	Singapore	193	+6 15	+6 19	+3.0	+0.8	1.40
3	St. Pierre, Réunion or Bourbon I.	21 16	55 35	3 42	Singapore	193	+1 38	+1 42	−4.0	−0.8	0.41
4	Port Louis, Mauritius Island	20 08	57 29	3 50	Singapore	193	+3 01	+3 04	−5.6	−1.2	0.19
5	Cargados, Carajos Shoals	16 36	59 45	3 59	Halifax	51	−6 13	−5 33	−1.4	+0.2	0.66
6	Rodriguez Island	19 45	63 25	4 14	Halifax	51	+4 41	+4 20	0.0	+0.4	0.89
7	Providence Island	9 13	51 01	3 24	Halifax	51	−2 12	−2 32	+1.8	+0.8	1.26
8	Mahé Island, Seychelle Islands	4 36	55 32	3 42	Halifax	51	−3 41	−4 01	−1.1	+0.3	0.68
9	Diego Garcia I., Chagos Islands	7 19	72 29	4 50	Halifax	51	+5 50	+5 30	+0.2	+0.4	0.94
10	Keeling Islands	12 07	96 55	6 28	Halifax	51	−2 50	−3 14	−0.4	+0.4	0.82
11	Christmas Island	11 30	105 30	7 02	Halifax	51	−1 00	−1 18	−1.0	+0.2	0.73
12	Amsterdam Island	37 50	77 33	5 10	Halifax	51	+2 44	+2 24	−2.0	0.0	0.54
13	St. Paul Island	38 39	77 34	5 10	Halifax	51	+2 34	+2 14	−2.2	0.0	0.49
14	Betsy Cove, Kerguelen Island	49 09	70 12	4 41	Halifax	51	+4 34	+4 23	−0.8	+0.2	0.75
	AFRICA (EAST AND SOUTH COASTS).										
	NATAL AND CAPE COLONY.										
15	Durban (Port Natal)	29 53	31 04	2 04	Calcutta	237	+2 41	+1 13	−5.0	−0.6	0.47
16	East London, Buffalo River	33 02	27 55	1 52	Cape Town	261	+2 00	+2 02	+0.2	+0.2	1.04
17	Port Elizabeth, Algoa Bay	33 58	25 37	1 42	Cape Town	261	+1 44	+1 45	+0.6	+0.2	1.12
18	Aliwal Harbor, Mossel Bay	34 11	22 09	1 29	Cape Town	261	+1 42	+1 44	+0.8	+0.2	1.16
19	Cape Agulhas	34 50	20 01	1 20	Cape Town	261	+1 04	+1 06	+0.5	+0.1	1.13
20	Roman Rocks, Simons Bay	34 11	18 27	1 14	Cape Town	261	+0 59	+1 01	+0.5	+0.1	1.13
21	CAPE TOWN, Table Bay	33 54	18 25	1 14	Cape Town	261	0 00	0 00	0.0	0.0	1.00
22	Saldanha Bay	33 05	17 58	1 12	Cape Town	261	+0 44	+0 46	+0.4	+0.2	1.10
23	Port Nolloth	29 15	16 51	1 07	Cape Town	261	+0 49	+0 51	+0.6	0.0	1.16
	AFRICA (WEST COAST).										
	ORANGE RIVER TO KONGO RIVER.										
24	Elizabeth Bay	26 51	15 11	1 01	Cape Town	261	+0 59	+1 00	+0.8	+0.2	1.18
25	Port d'Ilheo	23 20	14 28	0 58	Cape Town	261	+1 15	+1 17	+3.8	+0.6	1.97
26	Great Fish Bay	16 40	11 52	0 47	Cape Town	261	+1 25	+1 26	+0.9	+0.1	1.24
27	Benguela	12 34	13 23	0 54	Cape Town	261	+1 55	+1 57	+0.8	+0.2	1.18
28	Loanda	8 43	13 21	0 53	Cape Town	261	+2 05	+2 07	+0.2	0.0	1.04
29	Kongo River Entrance	6 07	12 22	0 49	Cape Town	261	+2 35	+2 39	+1.2	+0.2	1.30
	GUINEA.										
30	Loango Bay	4 38	11 46	0 47	Cape Town	261	+2 38	+2 40	+1.6	+0.2	1.42
31	Mayumba	3 21	10 40	0 43	Cape Town	261	+2 50	+2 52	+2.1	+0.3	1.53
32	Cape Lopez	0 48	8 42	0 35	Cape Town	261	+2 55	+2 57	+0.5	+0.1	1.13
		North.									
33	River Gaboon Entrance	0 23	9 26	0 38	Cape Town	261	+3 35	+3 38	+3.0	+0.4	1.73
34	Cameroon River Entrance	3 52	9 38	0 39	Cape Town	261	+3 30	+3 32	+2.3	+0.3	1.59
35	Niger River, Nun Entrance	4 17	6 05	0 24	Cape Town	261	+3 16	+3 18	+0.7	+0.1	1.18
36	Lagos River Entrance	6 25	3 25	0 14	Cape Town	261	+3 16	+3 20	−1.2	−0.2	0.72
37	Volta River Entrance	5 47	0 41	0 03	Cape Town	261	+2 46	+2 48	−0.4	0.0	0.92
			West.								
38	Cape Coast Castle	5 06	1 14	0 05	Cape Town	261	+2 47	+2 48	+1.2	+0.2	1.30
39	Cape Three Points	4 45	2 06	0 08	Cape Town	261	+2 27	+2 29	+0.1	+0.1	1.01
40	Grand Lahu	5 10	5 03	0 20	Cape Town	261	+2 37	+2 39	−0.2	0.0	0.95
	LIBERIA.										
41	Cape Palmas	4 22	7 44	0 31	Cape Town	261	+2 57	+2 59	−0.2	0.0	0.92
42	Sinu	5 00	9 08	0 37	Cape Town	261	+3 18	+3 22	+0.2	0.0	1.04
43	Monrovia	6 19	10 49	0 43	Cape Town	261	+4 08	+4 11	+1.2	+0.2	1.30
	SIERRA LEONE.										
44	Sherbro River Entrance	7 52	12 31	0 50	Cape Town	261	+4 18	+4 17	+5.0	+0.8	2.25
45	Freetown or Sierra Leone	8 30	13 17	0 53	Cape Town	261	+6 08	+6 12	+0.1	+0.9	2.51
46	Ponga River	10 09	14 00	0 56	Cape Town	261	+5 58	+6 02	+6.0	+0.8	2.49
	SENEGAMBIA.										
47	Bissao, Jeba River	11 39	16 01	1 04	Cape Town	261	+9 14	+9 18	+2.2	+0.4	1.56
48	Bathurst, Gambia River	13 28	16 42	1 07	Cape Town	261	+7 29	+7 33	+1.2	+0.2	1.27
49	Senegal River Entrance	16 40	16 30	1 06	Cape Town	261	+6 59	+7 03	+1.2	+0.2	1.30
50	St. Louis, Senegal River	16 11	16 00	1 04	Cape Town	261	+8 19	+8 23	+1.2	+0.2	1.27

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	4 45	10 58	4 17b	11 02b	6.6	10.0	1.7	7.1	0.3	2.0	.....	2.0	5.0	3.9	9.5
2	4 00	10 13	3 34b	10 16b	7.9	11.9	2.0	8.4	0.3	2.2	.....	2.1	6.0	4.5	9.5
3	11 50	5 38	11 04a	5 44b	2.3	3.5	0.6	2.6	0.1	1.2	.....	1.1	1.8	1.5	11.0
4	0 48	7 00	— 0 22b	7 09b	1.1	1.6	0.3	1.2	0.1	0.8	7 29	0.8	0.8	0.7	10.0
5	1 50	8 08	1 33b	8 07b	2.8	4.0	1.2	2.7	0.2	0.7	.....	0.7	2.0	1.4	7.0
6	0 20	6 32	0 06b	6 36b	3.8	5.5	1.6	3.6	0.2	0.8	.....	0.8	2.8	2.0	8.0
7	5 50	12 08	5 37b	12 06b	5.4	7.8	2.3	5.2	0.3	0.9	.....	1.0	3.9	2.8	6.5
8	4 22	10 35	4 05b	10 39b	2.9	4.3	1.2	2.8	0.2	0.7	.....	0.7	2.2	1.5	5.0
9	1 30	7 43	1 16b	7 46b	4.0	5.8	1.7	3.8	0.2	0.8	.....	0.8	2.9	2.1	2.0
10	5 20	11 32	5 04b	11 36b	3.5	5.1	1.5	3.4	0.2	0.7	.....	0.8	2.6	1.8	1.0
11	7 10	1 00	6 54b	1 04a	3.1	4.5	1.3	3.0	0.2	0.7	.....	0.7	2.2	1.6	0.5 E.
12	10 50	4 38	10 32b	4 42a	2.3	3.3	1.0	2.2	0.2	0.6	.....	0.6	1.6	1.2	22.0 W.
13	10 40	4 28	10 20b	4 33a	2.1	3.0	0.9	2.0	0.2	0.7	.....	0.6	1.5	1.2	22.5 W.
14	0 14	6 36	— 0 02a	6 40a	3.2	4.6	1.3	3.1	0.2	0.7	19 52	0.7	2.3	1.6	35.0 W.
															West.
15	3 58	10 11	4 00b	10 02a	3.8	5.6	1.6	4.7	0.4	0.1	17 10	0.5	2.8	2.2	25.5
16	3 37	9 50	3 35b	9 58a	3.6	5.0	1.8	4.3	0.4	0.1	.....	0.4	2.5	2.1	28.0
17	3 21	9 33	3 19b	9 41b	3.9	5.4	1.9	4.6	0.4	0.1	14 34	0.4	2.7	2.2	28.5
18	3 18	9 31	3 16b	9 38b	4.0	5.6	2.0	4.7	0.4	0.1	.....	0.4	2.8	2.3	29.0
19	2 40	8 53	2 37b	9 02b	3.9	5.2	2.2	4.8	0.5	0.2	.....	0.5	2.6	2.4	29.5
20	2 35	8 48	2 32b	8 57b	3.9	5.2	2.2	4.7	0.5	0.1	.....	0.5	2.6	2.1	29.0
21	1 36	7 47	1 33b	7 56b	3.5	4.6	2.0	4.2	0.4	0.1	0 20	0.5	2.3	2.0	29.0
22	2 20	8 33	2 17b	8 42b	3.8	5.1	2.1	4.5	0.5	0.1	.....	0.5	2.6	2.1	28.5
23	2 25	8 38	2 23b	8 46b	4.0	5.3	2.2	4.7	0.5	0.1	.....	0.5	2.6	2.1	27.0
24	2 35	8 47	2 33b	8 55b	4.1	5.5	2.3	4.8	0.5	0.1	.....	0.5	2.8	2.2	26.5
25	2 50	9 03	2 48b	9 10b	6.8	9.0	3.7	7.8	0.6	0.2	.....	0.7	4.5	3.8	25.0
26	3 00	9 12	2 58b	9 20b	4.3	5.7	2.4	5.0	0.5	0.1	.....	0.5	2.8	2.3	22.5
27	3 30	9 43	3 28b	9 51b	4.1	5.5	2.3	4.8	0.5	0.1	.....	0.5	2.8	2.2	19.0
28	3 40	9 53	3 37b	10 02b	3.6	4.8	2.0	4.3	0.5	0.1	.....	0.5	2.4	2.0	17.0
29	4 10	10 25	4 08b	10 32b	4.5	6.0	2.5	5.4	0.5	0.2	.....	0.5	3.0	2.3	16.0
30	4 13	10 26	4 11b	10 34b	4.9	6.5	2.7	5.8	0.5	0.2	.....	0.6	3.2	2.8	16.0
31	4 25	10 38	4 23b	10 45b	5.8	7.0	2.9	6.3	0.6	0.2	.....	0.6	3.5	3.0	15.5
32	4 30	10 43	4 27b	10 52b	3.9	5.2	2.2	4.6	0.5	0.1	.....	0.5	2.6	2.0	15.0
33	5 10	11 24	5 08b	11 31b	6.0	8.0	3.3	7.0	0.6	0.2	.....	0.6	4.0	3.4	15.0
34	5 05	11 18	5 03b	11 25b	5.5	7.3	3.0	6.5	0.6	0.2	.....	0.6	3.6	3.2	14.0
35	4 50	11 03	4 48b	11 11b	4.1	5.4	2.3	4.8	0.5	0.1	.....	0.5	2.7	2.2	14.5
36	4 50	11 05	4 47b	11 16b	2.5	3.3	1.3	3.1	0.4	0.1	.....	0.4	1.6	1.4	15.0
37	4 20	10 33	4 17b	10 44b	3.2	4.2	1.8	3.8	0.4	0.1	.....	0.5	2.1	1.8	15.5
38	4 20	10 32	4 18b	10 39b	4.5	6.0	2.5	5.4	0.5	0.2	.....	0.5	3.0	2.3	16.5
39	4 00	10 13	3 57b	10 22b	3.5	4.7	1.9	4.2	0.5	0.1	.....	0.5	2 4	2.0	17.0
40	4 10	10 23	4 07b	10 33b	3.3	4.4	1.8	3.9	0.4	0.1	.....	0.5	2.2	1.9	17.5
41	4 30	10 43	4 27b	10 54b	3.2	4.3	1.8	3.8	0.4	0.1	.....	0.5	2.2	1.8	18.5
42	4 50	11 05	4 47b	11 14b	3.6	4.8	2.0	4.3	0.5	0.1	.....	0 5	2 4	2 0	18.5
43	5 40	11 54	5 38b	12 01b	4.5	6.0	2.5	5.4	0.5	0.2	.....	0.5	3.0	2.3	18.5
44	5 50	12 00	5 46b	12 04b	7.8	10.4	4.8	7.9	0.6	0.4	.....	0 6	5 2	3.9	19.0
45	7 40	1 30	7 36b	1 34a	8.7	11.6	5.3	8.8	0.6	0.4	.....	0 7	5 8	4.3	19.0
46	7 30	1 20	7 27b	1 24a	8.6	11.4	5.2	8.7	0.6	0.4	.....	0.6	5.7	4.3	18.5
47	10 45	4 35	10 41b	4 40a	5.4	7.2	3.3	5.5	0.5	0.3	.....	0 5	3.6	2.7	19.0
48	9 00	2 50	8 55b	2 56a	4.4	5.9	2.7	4.5	0.5	0.3	.....	0 5	3 0	2.2	18.5
49	8 30	2 20	8 25b	2 26a	4.5	6.0	2.7	4.6	0.5	0.3	.....	0 5	3 0	2.2	16.0
50	9 50	3 40	9 45b	3 46a	4.4	5.9	2.7	4.5	0.5	0.3	.....	0.5	3.0	2.2	16.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	AFRICA (WEST COAST)—Cont'd.										
	SAHARA.	*North.*	*West.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Cape Blanco	20 49	17 06	1 08	Cape Town	261	+10 04	+10 06	+0.8	+0.2	1.18
2	Cape Bojador	26 10	14 29	0 58	Cape Town	261	+10 18	+10 20	+2.3	+0.3	1.59
3	Cape Juby	27 57	12 54	0 52	Cape Town	261	+10 23	+10 25	+3.4	+0.4	1.85
	ISLANDS.	*South.*									
4	Tristan da Cunha Island	37 10	12 15	0 49	Cape Town	261	+10 18	+10 22	+0.5	+0.1	1.13
5	St. Helena Island	15 54	5 44	0 23	Cape Town	261	+ 1 27	+ 1 26	−0.6	+0.8	0.61
6	Ascension Island	7 55	14 25	0 58	Cape Town	261	+ 3 48	+ 3 47	−2.3	−0.3	0.43
	Cape Verde Islands.	*North.*									
7	Porto Praya, St. Jago Island	14 53	23 31	1 34	Cape Town	261	+ 4 20	+ 4 19	+0.2	0.0	1.04
8	Do Sino Point Sal Island	16 34	22 56	1 32	Cape Town	261	+ 6 00	+ 6 04	−0.2	0.0	0.95
9	Porto Grande, St. Vincent Island	16 53	25 00	1 40	Cape Town	261	+ 4 20	+ 4 19	−1.2	−0.2	0.72
	Canary Islands.										
10	Santa Cruz, Palma Island	28 40	17 45	1 11	Cape Town	261	− 1 13	− 1 14	+3.5	+0.5	1.88
11	Santa Cruz, Teneriffe Island	28 28	16 15	1 05	Cape Town	261	− 0 18	− 0 17	+2.8	+0.4	1.71
12	Puerto de la Luz, Gran Canaria I	28 09	15 25	1 02	Cape Town	261	− 0 53	− 0 54	+4.0	+0.6	2.02
13	Port Naos, Lanzarote Island	28 57	13 33	0 54	Cape Town	261	− 0 44	− 0 45	+3.4	+0.4	1.85
	Madeira Islands.										
14	Funchal Bay, Madeira Island	32 38	16 55	1 08	Cape Town	261	− 0 58	− 0 57	+1.8	+0.2	1.45
15	Porto Santo Bay	33 05	16 22	1 05	Cape Town	261	− 0 53	− 0 52	+1.8	+0.2	1.45
	Azores Islands.										
16	Horta Bay, Fayal Island	38 32	28 38	1 55	Cape Town	261	− 2 25	− 2 23	−0.6	0.0	0.84
17	Angra Bay, Terceira Island	38 38	27 14	1 49	Cape Town	261	− 1 10	− 1 09	−0.2	0.0	0.95
18	Arnel Point, San Miguel Island	37 49	25 08	1 41	Cape Town	261	− 1 15	− 1 14	+0.9	+0.1	1.24
	AFRICA (NORTH COAST).										
	MOROCCO.										
19	Santa Cruz or Agadir	30 29	9 35	0 38	Lisbon	265	− 1 50	− 1 23	−2.0	−0.4	0.80
20	Mogador	31 31	9 43	0 39	Lisbon	265	− 1 15	− 0 48	−0.2	−0.2	0.99
21	Rabat	34 04	6 46	0 27	Lisbon	265	− 0 45	− 0 20	−0.6	−0.2	0.95
22	Tangier, Gibraltar Strait	35 47	5 48	0 23	Lisbon	265	− 0 50	− 0 25	−2.8	−0.4	0.73
23	Ceuta, Gibraltar Strait	35 54	5 17	0 21	Cape Town	261	+ 0 22	+ 0 23	−1.2	−0.2	0.72
	Mediterranean Sea.										
24	Tetuan	35 37	5 11	0 21	Colombo	245	+ 0 16	+ 0 34	+0.4	0.0	1.33
25	Gomera	35 10	4 18	0 17	Colombo	245	+ 0 23	+ 0 41	+0.1	−0.1	1.19
26	Melilla	35 18	2 57	0 12	Colombo	245	+ 0 26	+ 0 44	+0.2	0.0	1.26
	ALGERIA.		*East.*								
27	Cape Ivi	36 07	0 13	0 01	Colombo	245	+ 0 43	+ 1 01	+0.4	0.0	1.33
28	Algiers	36 47	3 04	0 12	Colombo	245	+ 1 01	+ 1 19	+0.6	0.0	1.48
29	Port Collo	37 00	6 35	0 26	Colombo	245	+ 1 24	+ 1 42	+0.8	0.0	1.63
	TUNIS.										
30	Goletta, Tunis Entrance	36 48	10 18	0 41	Colombo	245	+ 1 47	+ 2 15	+0.8	+0.2	1.56
31	Sfax Road	34 44	10 46	0 43	Colombo	245	+ 1 49	+ 2 17	+1.8	+0.3	2.15
32	Nathor, Surkenis Bay	34 15	10 04	0 40	Colombo	245	+ 2 04	+ 2 22	+2.8	+0.6	2.74
33	Humt Suk, Jerba Island	33 53	10 51	0 43	Colombo	245	+ 2 24	+ 2 43	+2.6	+0.6	2.59
34	Zarzis	33 30	11 07	0 44	Colombo	245	+ 1 14	+ 1 32	+0.2	0.0	1.11
	TRIPOLI.										
35	Tripoli	32 54	13 11	0 53	Colombo	245	+ 8 14	+ 8 35	0.0	0.0	0.96
36	Benghazi	32 07	20 03	1 20	Colombo	245	+ 8 08	+ 8 29	−0.7	−0.1	0.59
	EGYPT.										
37	Alexandria	31 12	29 52	1 59	Colombo	245	+ 7 57	+ 7 58	−0.7	−0.1	0.59
38	Port Said	31 16	32 19	2 09	Colombo	245	+ 7 51	+ 8 12	−0.8	−0.2	0.52
	ASIA (MEDITERRANEAN SEA).										
	SYRIA.										
39	Yafa (Joppa or Jaffa)	32 03	34 44	2 19	Colombo	245	+ 7 51	+ 8 12	−0.6	−0.2	0.67
40	Beirut	33 54	35 28	2 22	Colombo	245	+ 7 56	+ 8 17	−0.7	−0.1	0.59
	ASIA MINOR AND ISLANDS.										
41	Famagusta, Cyprus Island	35 07	33 57	2 16	Colombo	245	+ 7 51	+ 8 12	−0.5	−0.1	0.74
42	Smyrna Harbor	38 25	27 08	1 49	Colombo	245	+ 7 27	+ 7 58	+0.4	0.0	1.26

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap. (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	11 35	5 23	11 30b	5 28a	4.1	5.5	2.5	4.2	0.5	0.3	.....	0.4	2.8	2.0	16.0
2	11 50	5 38	11 46b	5 43a	5.5	7.3	3.4	5.6	0.5	0.3	.....	0.5	3.6	2.7	17.0
3	11 55	5 43	11 51b	5 48a	6.4	8.5	3.9	6.5	0.6	0.3	.....	0.6	4.2	3.2	17.0
4	11 50	5 40	11 45a	5 45b	3.9	5.2	2.4	4.0	0.4	0.3	.....	0.4	2.6	1.9	24.0
5	3 00	9 10	2 54b	9 17b	2.1	2.8	1.3	2.2	0.3	0.2	.....	0.3	1.4	1.0	24.5
6	5 20	11 30	5 11b	11 41b	1.5	2.0	0.9	1.6	0.2	0.2	.....	0.3	1.0	0.7	23.0
7	5 50	12 00	5 45b	12 06b	3.6	4.8	2.2	3.7	0.4	0.2	.....	0.4	2.4	1.8	19.5
8	7 30	1 20	7 24b	1 28a	3.3	4.4	2.0	3.4	0.4	0.2	.....	0.4	2.2	1.6	19.5
9	5 50	12 00	5 44b	12 06b	2.5	3.3	1.5	2.6	0.3	0.2	.....	0.3	1.6	1.2	19.5
10	0 20	6 30	0 16a	6 35a	6.5	8.6	4.0	6.6	0.6	0.3	.....	0.6	4.3	3.2	18.0
11	1 15	7 27	1 11a	7 31a	5.9	7.8	3.6	6.0	0.5	0.3	.....	0.5	3.9	2.9	18.0
12	0 40	6 50	0 36a	6 55a	7.0	9.3	4.3	7.1	0.6	0.4	.....	0.6	4.6	3.5	17.5
13	0 50	7 00	0 46a	7 05a	6.4	8.5	3.9	6.5	0.5	0.3	.....	0.6	4.2	3.2	17.0
14	0 35	6 47	0 30a	6 52a	5.0	6.6	3.0	5.1	0.5	0.3	.....	0.5	3.3	2.5	18.5
15	0 40	6 52	0 35a	6 57a	5.0	6.6	3.0	5.1	0.5	0.3	.....	0.5	3.3	2.5	18.0
16	11 30	5 18	11 24b	5 25a	2.9	3.9	1.8	3.0	0.4	0.2	.....	0.4	2.0	1.4	24.0
17	0 20	6 32	0 14a	6 38a	3.3	4.4	2.0	3.4	0.4	0.2	.....	0.4	2.2	1.6	24.0
18	0 15	6 27	0 09a	6 33a	4.3	5.7	2.6	4.4	0.4	0.3	.....	0.5	2.8	2.1	23.0
19	0 30	6 42	0 26a	6 47a	6.6	8.8	4.0	6.7	0.5	0.3	.....	0.6	4.4	3.3	16.0
20	1 05	7 17	1 02a	7 21a	8.2	10.9	5.0	8.3	0.5	0.4	.....	0.6	5.4	4.1	16.0
21	1 35	7 45	1 31a	7 49a	7.8	10.4	4.8	7.9	0.6	0.4	.....	0.6	5.2	3.9	15.5
22	1 30	7 40	1 25a	7 45a	6.0	8.0	3.7	6.1	0.4	0.3	.....	0.6	4.0	3.0	15.0
23	1 55	8 07	1 49a	8 13a	2.5	3.3	1.5	2.6	0.3	0.2	.....	0.3	1.6	1.2	15.0
24	2 00	8 12	2 11a	7 50a	1.8	2.3	1.2	2.2	0.6	0.3	.....	0.7	1.2	1.0	15.0
25	2 07	8 19	2 18a	7 59a	1.6	2.1	1.1	1.9	0.5	0.3	.....	0.6	1.0	0.9	14.5
26	2 10	8 22	2 20a	8 03a	1.7	2.2	1.1	2.0	0.5	0.3	.....	0.6	1.1	0.9	14.0
27	2 27	8 39	2 38a	8 17a	1.8	2.3	1.2	2.2	0.6	0.3	.....	0.7	1.2	1.0	13.5
28	2 46	8 58	2 56a	8 37a	2.0	2.6	1.3	2.4	0.6	0.4	.....	0.7	1.3	1.1	13.0
29	3 09	9 21	3 18a	9 04a	2.2	2.8	1.5	2.6	0.6	0.4	.....	0.7	1.4	1.2	11.5
30	3 33	9 55	3 36a	9 45a	2.1	3.0	0.8	2.2	0.3	0.1	.....	0.3	1.5	1.1	10.5
31	3 35	9 57	3 37a	9 50a	2.9	4.2	1.1	3.0	0.3	0.1	.....	0.3	2.1	1.5	10.5
32	3 50	10 02	3 52a	9 54a	3.7	5.4	1.4	3.9	0.4	0.1	.....	0.4	2.7	1.9	10.5
33	4 10	10 23	4 12a	10 16a	3.5	5.1	1.4	3.6	0.3	0.1	.....	0.3	2.6	1.8	10.0
34	3 00	9 12	3 03a	9 03b	1.5	2.2	0.6	1.6	0.2	0.1	.....	0.2	1.1	0.8	10.0
35	10 00	3 50	10 03a	3 39a	1.3	1.9	0.5	1.4	0.2	0.1	.....	0.2	1.0	0.7	9.5
36	9 55	3 45	10 00a	3 27a	0.8	1.2	0.3	0.9	0.2	0.1	.....	0.2	0.6	0.4	7.0
37	9 45	3 15	9 50a	2 57b	0.8	1.1	0.3	0.9	0.2	0.0	.....	0.2	0.6	0.4	4.0
38	9 40	3 30	9 46a	3 09b	0.7	1.0	0.3	0.8	0.2	0.0	.....	0.2	0.5	0.4	3.5
39	9 40	3 30	9 45a	3 14a	0.9	1.3	0.4	1.0	0.2	0.0	.....	0.2	0.6	0.5	3.0
40	9 45	3 35	9 50a	3 17a	0.8	1.2	0.3	0.9	0.2	0.0	.....	0.2	0.6	0.4	2.0
41	9 40	3 30	9 44a	3 15a	1.0	1.4	0.4	1.1	0.2	0.0	.....	0.2	0.7	0.5	2.5
42	9 15	3 15	9 18a	3 06a	1.7	2.5	0.7	1.8	0.2	0.1	.....	0.2	1.2	0.9	4.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (MEDITERRANEAN SEA).										
	GREECE.	North.	East.				Local time.		Mean Low Water Springs.		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Volo, Gulf of Volo	39 22	22 58	1 32	Colombo	245	+7 28	+7 46	+0.3	+0.1	1.19
2	Patras, Gulf of Corinth	38 15	21 44	1 27	Colombo	245	+1 55	+2 12	−0.8	−0.2	0.52
	AUSTRIA.										
	Adriatic Sea.										
3	Port Comisa, Lissa Island	43 03	16 05	1 04	Colombo	245	+2 13	+2 49	+0.4	0.0	1.26
4	Port Sebenico	43 43	15 51	1 03	Colombo	245	+4 24	+5 05	−0.8	−0.2	0.52
5	Port Lussin Piccolo	44 33	14 26	0 58	Colombo	245	+6 24	+7 10	−0.7	−0.1	0.59
6	Port Fiume	45 19	14 27	0 58	Colombo	245	+6 29	+7 20	−0.7	−0.1	0.59
7	Port Pola	44 53	13 48	0 55	Colombo	245	+7 14	+8 10	+1.2	+0.2	1.70
8	Trieste	45 38	13 45	0 55	Colombo	245	+7 34	+8 35	0.0	0.0	1.04
	ITALY AND ISLANDS.										
9	Port Malamocco	45 20	12 19	0 49	Colombo	245	+8 29	+9 30	+1.0	+0.2	1.70
10	Brindisi	40 39	18 00	1 12	Colombo	245	+1 43	+2 02	−0.2	0.0	0.89
11	Port Augusta, Sicily	37 13	15 14	1 01	Colombo	245	+1 14	+1 33	−1.0	−0.2	0.44
12	Valetta Harbor, Malta	35 54	14 31	0 58	Colombo	245	+1 26	+1 45	−1.0	−0.2	0.34
13	Naples	40 50	14 16	0 57	Colombo	245	+2 14	+2 33	−1.0	−0.2	0.37
	FRANCE.										
	Mediterranean Sea.						Paris time.				
14	Toulon	43 05	5 55	0 24	Colombo	245	+6 22	+6 55	−1.2	−0.2	0.33
15	Marseille	43 18	5 21	0 21	Colombo	245	+5 34	+6 34	−1.2	−0.2	0.36
	SPAIN.										
	Mediterranean Sea.		West.								
16	Valencia	39 27	0 19	0 01	Colombo	245	+3 16	+3 52	−0.3	−0.1	0.89
17	Malaga	36 43	4 24	0 18	Colombo	245	+0 31	+0 57	+0.8	0.0	1.63
18	Gibraltar, Gibraltar Strait	36 07	5 21	0 21	Cape Town	261	+0 02	+0 11	−0.8	−0.2	0.81
19	Tarifa, Gibraltar Strait	36 00	5 36	0 22	Cape Town	261	−0 01	+0 08	+0.8	+0.2	1.21
	EUROPE (WEST COAST).										
	SPAIN—continued.										
20	Conil	36 17	6 15	0 25	Lisbon	265	−1 15	−0 47	+0.2	0.0	1.04
21	Cadiz	36 31	6 19	0 25	Lisbon	265	−0 35	−0 07	+0.6	0.0	1.07
22	Salmedina Rocks	36 42	6 26	0 26	Lisbon	265	−1 05	−0 37	+1.0	+0.2	1.11
23	Bonanza, Guadalquivir River	36 48	6 20	0 25	Lisbon	265	−0 30	−0 02	+1.2	0.0	1.14
24	Port of Huelva, Odiel River	37 08	6 50	0 27	Lisbon	265	−0 37	−0 09	+2.2	+0.2	1.25
	PORTUGAL.										
25	Guadiana River Entrance	37 10	7 19	0 29	Lisbon	265	−0 42	−0 14	+2.6	+0.4	1.27
26	Lagos	37 07	8 38	0 35	Lisbon	265	−0 26	+0 02	+1.6	+0.2	1.16
27	Setubal	38 31	8 45	0 35	Lisbon	265	−0 11	+0 14	+0.4	0.0	1.04
28	Tagus River Entrance	38 40	9 15	0 37	Lisbon	265	−0 19	+0 09	0.0	0.0	0.99
29	LISBON (Arsenal), Tagus River	38 41	9 06	0 36	Lisbon	265	0 00	0 00	0.0	0.0	1.00
30	Peniche	39 20	9 23	0 38	Lisbon	265	−0 15	+0 10	−3.0	−0.4	0.71
31	Port Figueria, Mondego River	40 09	8 52	0 35	Lisbon	265	0 00	+0 30	−3.6	−0.6	0.63
32	Oporto, Douro River	41 09	8 41	0 35	Lisbon	265	+0 04	+0 32	−1.0	−0.2	0.90
	SPAIN—continued.										
	North and west coasts.										
33	Vigo	42 15	8 41	0 35	Lisbon	265	+0 20	+0 48	+1.2	0.0	1.14
34	Salvora Island, Aroea Bay	42 28	9 01	0 36	Lisbon	265	+0 20	+0 48	−0.3	−0.1	0.98
35	Cape Finisterre	42 53	9 16	0 37	Lisbon	265	+0 22	+0 50	−1.0	−0.2	0.91
36	Port Camariñas	43 08	9 09	0 37	Rochelle	269	−0 57	−0 52	−2.0	0.0	0.86
37	Coruña	43 23	8 24	0 34	Rochelle	269	−0 57	−0 52	−1.8	0.0	0.86
38	Ferrol	43 29	8 16	0 33	Rochelle	269	−0 56	−0 51	−1.8	0.0	0.87
39	Cedeira	43 39	8 05	0 32	Rochelle	269	−0 57	−0 52	−1.8	0.0	0.86
40	Vivero	43 41	7 32	0 30	Rochelle	269	−0 56	−0 51	−1.8	0.0	0.86
41	Rivadeo	43 33	7 00	0 28	Rochelle	269	−0 55	−0 50	−2.2	0.0	0.84
42	Aviles River	43 38	5 56	0 24	Rochelle	269	−0 55	−0 50	−4.2	−0.4	0.70
43	Gijon Bay	43 34	5 39	0 23	Rochelle	269	−0 50	−0 32	−2.7	−0.3	0.81
44	San Vicente de la Barquera	43 24	4 25	0 18	Rochelle	269	−0 41	−0 22	−5.4	−0.8	0.63
45	Suances, San Martin de la Arena	43 27	4 01	0 16	Rochelle	269	−0 41	−0 22	−4.4	−0.6	0.71
46	Santander	43 28	3 47	0 15	Rochelle	269	−0 36	−0 18	−1.6	−0.2	0.89
47	Santoña	43 28	3 28	0 14	Rochelle	269	−0 46	−0 29	−3.8	−0.4	0.74

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Ge).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	9 15	3 02	9 18a	2 53a	1.6	2.3	0.6	1.7	0.2	0.1	.....	0.2	1.2	0.8	6.0
2	3 40	9 58	3 46a	9 32b	0.7	1.0	0.3	0.8	0.2	0.0	.....	0.2	0.5	0.4	6.5
3	4 00	10 30	4 03a	10 21b	1.7	2.4	0.7	1.8	0.2	0.1	.....	0.2	1.2	0.9	8.0
4	6 10	0 20	6 16a	− 0 01a	0.7	1.0	0.3	0.8	0.2	0.0	.....	0.2	0.5	0.4	8.5
5	8 10	2 25	8 15a	2 07a	0.8	1.1	0.3	0.9	0.2	0.0	.....	0.2	0.6	0.4	8.5
6	8 15	2 35	8 20a	2 17a	0.8	1.2	0.3	0.9	0.2	0.0	.....	0.2	0.6	0.4	8.5
7	9 00	3 25	9 03a	3 16a	2.3	3.4	0.9	2.4	0.3	0.1	.....	0.3	1.7	1.2	9.0
8	9 20	3 50	9 23a	3 40a	1.4	2.0	0.6	1.5	0.2	0.1	.....	0.2	1.0	0.7	9.0
9	10 15	4 45	10 18a	4 36a	2.3	3.3	0.9	2.4	0.3	0.1	.....	0.3	1.6	1.2	9.5
10	3 30	9 43	3 34a	9 31b	1.2	1.8	0.5	1.3	0.2	0.0	.....	0.2	0.9	0.6	7.5
11	3 00	9 13	3 04a	9 01b	0.6	0.9	0.2	0.6	0.1	0.0	.....	0.1	0.4	0.3	8.5
12	3 12	9 25	3 18a	9 06b	0.5	0.7	0.2	0.5	0.1	0.0	4 18	0.1	0.4	0.2	9.0
13	4 00	10 13	4 04a	9 58b	0.5	0.7	0.2	0.5	0.1	0.0	.....	0.1	0.4	0.3	9.0
14	8 22	2 24	8 43a	1 45a	0.4	0.6	0.2	0.6	0.3	0.2	10 28	0.3	0.3	0.3	12.5
15	7 31	2 00	7 51a	1 22a	0.5	0.6	0.3	0.7	0.3	0.2	9 49	0.3	0.3	0.3	12.5
16	5 00	11 30	5 13a	11 08a	1.2	1.5	0.8	1.5	0.4	0.2	.....	0.5	0.8	0.7	14.0
17	2 15	8 35	2 24a	8 18a	2.2	2.9	1.5	2.7	0.6	0.4	.....	0.7	1.4	1.2	14.5
18	1 35	7 55	1 29a	8 02a	2.8	3.7	1.7	2.9	0.4	0.2	.....	0.4	1.8	1.4	15.0
19	1 32	7 52	1 26a	7 59a	4.2	5.6	2.6	4.3	0.4	0.3	.....	0.6	2.8	2.1	15.0
20	1 05	7 18	1 02a	7 22a	8.6	11.5	5.2	8.7	0.6	0.4	.....	0.6	5.8	4.3	15.5
21	1 45	7 58	1 41a	8 02a	8.8	11.8	5.4	8.9	0.6	0.4	.....	0.7	5.9	4.4	15.5
22	1 15	7 28	1 11a	7 32a	9.2	12.3	5.6	9.3	0.6	0.4	.....	0.7	6.2	4.6	15.5
23	1 50	8 03	1 46a	8 07a	9.4	12.5	5.7	9.5	0.6	0.4	.....	0.7	6.2	4.7	15.5
24	1 43	8 56	1 40a	9 00a	10.3	13.7	6.3	10.4	0.7	0.4	.....	0.7	6.8	5.1	15.5
25	1 45	7 58	1 41a	8 02a	10.5	14.2	6.1	10.8	0.7	0.6	.....	0.9	7.1	5.3	16.0
26	1 55	8 08	1 51a	8 13a	9.6	13.0	5.6	9.8	0.7	0.5	.....	0.9	6.5	4.9	16.5
27	2 10	8 20	2 06a	8 25a	8.6	11.6	5.0	8.8	0.6	0.5	.....	0.8	5.8	4.4	16.5
28	2 00	8 13	1 56a	8 18a	8.2	11.1	4.8	8.4	0.6	0.5	.....	0.8	5.6	4.2	17.0
29	2 20	8 05	2 16a	8 10a	8.3	11.1	4.8	8.5	0.6	0.5	24 13	0.8	5.6	4.2	17.0
30	2 05	8 15	2 00a	8 21a	5.8	7.8	3.4	6.0	0.5	0.4	.....	0.7	3.9	3.0	17.0
31	2 20	8 35	2 15a	8 41a	5.2	7.0	3.0	5.4	0.5	0.4	.....	0.6	3.5	2.7	17.0
32	2 25	8 38	2 21a	8 44a	7.4	10.0	4.3	7.6	0.6	0.5	.....	0.8	5.0	3.8	17.0
33	2 40	8 53	2 36a	8 57a	9.4	12.5	5.7	9.5	0.6	0.4	.....	0.7	6.2	4.7	17.5
34	2 40	8 53	2 36a	8 57a	8.1	10.8	4.9	8.2	0.6	0.4	.....	0.6	5.4	4.0	17.5
35	2 42	8 55	2 38a	8 59a	7.5	10.0	4.6	7.6	0.6	0.4	.....	0.6	5.0	3.7	18.0
36	2 43	8 56	2 42a	8 59a	10.7	14.6	6.0	10.9	0.4	0.2	.....	0.4	7.3	5.5	18.0
37	2 43	8 56	2 42a	8 59a	10.8	14.8	6.1	11.0	0.4	0.2	.....	0.4	7.4	5.5	17.5
38	2 44	8 57	2 43a	9 00a	10.9	14.9	6.1	11.1	0.4	0.2	.....	0.4	7.4	5.6	17.5
39	2 43	8 56	2 42a	8 59a	10.8	14.8	6.1	11.0	0.4	0.2	.....	0.4	7.4	5.5	17.5
40	2 44	8 57	2 43a	9 00a	10.7	14.7	6.0	10.9	0.4	0.2	.....	0.4	7.4	5.5	17.5
41	2 45	8 58	2 44a	9 01a	10.5	14.4	5.9	10.7	0.4	0.2	.....	0.4	7.2	5.4	17.5
42	2 45	8 58	2 44a	9 02a	8.8	12.0	4.9	9.0	0.4	0.2	.....	0.4	6.0	4.5	16.5
43	2 50	9 03	2 47a	9 08a	10.2	13.5	6.3	10.7	0.8	0.5	.....	0.9	6.8	5.3	16.5
44	3 00	9 14	2 56a	9 19a	7.9	10.4	4.9	8.3	0.7	0.5	.....	0.8	5.2	4.1	16.5
45	3 00	9 14	2 56a	9 19a	8.9	11.7	5.5	9.3	0.7	0.5	.....	0.9	5.8	4.6	15.5
46	3 05	9 18	3 02a	9 23a	11.2	14.8	6.9	11.7	0.8	0.5	.....	1.0	7.4	5.8	15.5
47	2 55	9 07	2 52a	9 12a	9.3	12.3	5.7	9.7	0.7	0.5	.....	0.9	6.2	4.8	15.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	SPAIN—continued.										
	North and west coasts—Continued.	*North.*	*West.*				*Paris time.*		*Mean Low Water Springs.*		
		° ′	° ′	*h. m.*			*h. m.*	*h. m.*	*feet.*	*feet.*	
1	Castro Urdiales	43 24	3 16	0 13	Rochelle	269	−0 51	−0 33	−4.2	−0.6	0.71
2	Bilbao River Entrance	43 23	3 04	0 12	Rochelle	269	−0 51	−0 33	−3.4	−0.4	0.76
3	Bilbao	43 16	2 56	0 12	Rochelle	269	−0 41	−0 26	−6.8	−1.0	0.53
4	Lequeitio	43 23	2 34	0 10	Rochelle	269	−0 46	−0 31	−5.4	−0.8	0.63
5	San Sebastian	43 19	2 00	0 08	Rochelle	269	−0 46	−0 31	−4.4	−0.6	0.71
	FRANCE—continued.										
	Bay of Biscay.										
6	St. Jean de Luz (Fort Socoa)	43 24	1 40	0 07	Rochelle	269	−0 18	−0 06	−3.8	−0.4	0.74
7	Boucaut, Adour River	43 34	1 31	0 06	Rochelle	269	+0 09	+0 26	−7.2	−1.0	0.50
8	Cape Feret	44 38	1 14	0 05	Rochelle	269	+0 23	+0 46	−3.5	−0.5	0.76
9	Arcachon Basin	44 40	1 09	0 05	Rochelle	269	+0 58	+1 22	−3.4	−0.4	0.76
10	Cordouan Light, Gironde River	45 35	1 10	0 05	Rochelle	269	+0 08	+0 31	+0.2	0.0	1.01
11	Royan, Gironde River	45 37	1 02	0 04	Rochelle	269	+0 10	+0 42	+0.1	+0.1	1.00
12	Montagne, Gironde River	45 28	0 48	0 03	Rochelle	269	+0 45	+1 33	0.0	0.0	1.00
13	Maréchale, Gironde River	45 19	0 46	0 03	Rochelle	269	+1 06	+2 04	+0.1	+0.1	1.00
14	Pauillac, Gironde River	45 12	0 45	0 03	Rochelle	269	+1 22	+2 31	+1.2	+0.2	1.09
15	Blaye, Gironde River	45 07	0 40	0 03	Rochelle	269	+1 48	+3 11	0.0	0.0	1.00
16	Bordeaux, Gironde River	44 50	0 34	0 02	Rochelle	269	+3 00	+3 12	−1.2	−0.2	0.92
17	Marennes, Seudre River Entrance	45 48	1 09	0 05	Rochelle	269	−0 02	+0 20	−3.0	−0.4	0.79
18	Ile d'Aix, Charente River	46 01	1 11	0 05	Rochelle	269	0 00	0 00	0.0	0.0	1.00
19	Rochefort, Charente River	45 57	0 58	0 04	Rochelle	269	+0 17	+0 32	+0.1	+0.1	1.00
20	ROCHELLE	46 09	1 09	0 05	Rochelle	269	0 00	0 00	0.0	0.0	1.00
21	St. Martin, Ile de Ré	46 12	1 22	0 05	Rochelle	269	−0 27	+0 01	+0.2	0.0	1.01
22	Les Sables d'Olonne	46 29	1 48	0 07	Rochelle	269	−0 05	+0 24	−3.4	−0.4	0.76
23	St. Gilles	46 42	1 57	0 08	Rochelle	269	−0 04	+0 23	−2.0	−0.2	0.87
24	Isle d'Yeu	46 43	2 23	0 10	Rochelle	269	−0 04	+0 23	−1.6	−0.2	0.88
25	Fromantine Channel	46 53	2 09	0 09	Rochelle	269	−0 23	+0 03	−3.6	−0.4	0.75
26	Port l'Herbandiere, Noirmoutier I.	47 02	2 18	0 09	Rochelle	269	−0 18	+0 08	+0.1	+0.1	1.00
27	Port Pornic	47 07	2 07	0 08	Rochelle	269	−0 24	+0 02	−0.2	0.0	0.99
28	St. Nazaire, Loire River	47 16	2 12	0 09	Rochelle	269	+0 12	+0 38	0.0	0.0	1.00
29	Paimbœuf, Loire River	47 17	2 03	0 08	Rochelle	269	+0 54	+1 20	+0.4	0.0	1.02
30	Pellerin, Loire River	47 13	1 45	0 07	Rochelle	269	+1 35	+2 08	−0.2	0.0	0.98
31	Nantes, Loire River	47 12	1 33	0 06	Rochelle	269	+2 24	+3 07	−0.2	0.0	0.99
32	Pouliguen	47 16	2 25	0 10	Rochelle	269	−0 07	+0 21	0.0	0.0	1.00
33	Croisic	47 18	2 31	0 10	Rochelle	269	+0 03	+0 30	+0.1	+0.1	1.00
34	Penerf, Vilaine River	47 31	2 30	0 10	Rochelle	269	+0 08	+0 36	+0.2	0.0	1.01
35	Port Navalo, Quiberon Bay	47 33	2 55	0 12	Rochelle	269	+0 25	+0 53	0.0	0.0	1.00
36	Vannes	47 40	2 45	0 11	Rochelle	269	+2 26	+2 55	−0.7	−0.1	0.95
37	Auray	47 41	2 58	0 12	Rochelle	269	+0 40	+1 08	−0.4	0.0	0.98
38	Crac'h River	47 34	3 00	0 12	Rochelle	269	+0 10	+0 38	+0.1	+0.1	1.00
39	Port Haliguen, Quiberon Bay	47 29	3 06	0 12	Rochelle	269	+0 15	+0 43	+0.2	0.0	1.02
40	Hoedic Island	47 20	2 52	0 11	Rochelle	269	−0 01	+0 30	+0.1	+0.1	1.00
41	Port le Palais, Belle Isle	47 21	3 09	0 13	Rochelle	269	+0 06	+0 36	0.0	0.0	1.00
42	Port Louis	47 42	3 21	0 13	Brest	273	−0 23	−0 18	−5.0	−0.8	0.71
43	Lorient	47 45	3 22	0 13	Brest	273	−0 19	−0 14	−5.0	−0.8	0.71
44	Concarneau	47 53	3 54	0 16	Brest	273	−0 25	−0 20	−5.9	−0.9	0.66
45	Glenan Islands	47 46	4 02	0 16	Brest	273	−0 25	−0 20	−5.8	−0.8	0.67
46	Benodet, Odet River	47 52	4 07	0 16	Brest	273	−0 10	−0 04	−3.8	−0.6	0.79
47	Loctudy	47 50	4 10	0 17	Brest	273	−0 04	0 00	−3.8	−0.6	0.78
48	Penmarch	47 48	4 23	0 18	Brest	273	−0 18	−0 11	−5.6	−0.8	0.68
49	Audièrne	48 01	4 33	0 18	Brest	273	−0 19	−0 14	−7.4	−1.0	0.57
	English Channel.										
50	Isle de Sein	48 03	4 52	0 19	Brest	273	+0 03	+0 09	−2.0	−0.4	0.88
51	Douarnenez	48 06	4 19	0 17	Brest	273	−0 04	+0 02	−1.0	−0.2	0.94
52	Camaret	48 17	4 36	0 18	Brest	273	+0 12	+0 17	−1.2	−0.2	0.93
53	BREST	48 23	4 29	0 18	Brest	273	0 00	0 00	0.0	0.0	1.00
54	Port Conquet	48 22	4 47	0 19	Brest	273	+0 08	+0 11	−0.2	−0.2	0.99
55	Molène	48 19	4 55	0 20	Brest	273	+0 24	+0 27	−0.3	−0.1	0.99
56	Ushant or Ouessant Island	48 28	5 08	0 21	Brest	273	+0 15	+0 18	−0.6	−0.2	0.97
57	Abervrach	48 37	4 35	0 18	Brest	273	+0 37	+0 40	+1.0	0.0	1.06
58	Isle de Bas	48 45	4 02	0 16	Brest	273	+1 10	+1 13	+2.2	+0.2	1.13
59	Roscoff	48 43	3 59	0 16	Brest	273	+1 15	+1 18	+2.1	+0.3	1.12
60	Morlaix	48 40	3 53	0 16	Brest	273	+1 35	+1 38	+3.2	+0.4	1.18
61	Ploumanach	48 50	3 29	0 14	Brest	273	+1 43	+1 46	+3.2	+0.4	1.20
62	Plougrescant, Tréguier River	48 51	3 11	0 13	Brest	273	+1 47	+1 50	+4.6	+0.6	1.27
63	Tréguier, Tréguier River	48 46	3 14	0 13	Brest	273	+1 57	+2 00	+2.8	+0.4	1.16
64	Heaux Light	48 55	3 05	0 12	Brest	273	+2 07	+2 09	+9.4	+1.4	1.54

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	2 50	9 03	2 46a	9 08a	8.9	11.8	5.5	9.3	0.7	0.5	.....	0.9	5.9	4.6	15.5
2	2 50	9 03	2 47a	9 08a	9.6	12.7	5.9	10.0	0.7	0.5	.....	0.9	6.4	5.0	15.0
3	3 00	9 10	2 56a	9 15a	6.7	8.9	4.1	7.1	0.6	0.4	.....	0.7	4.4	3.5	15.0
4	2 55	9 05	2 52a	9 10a	8.0	10.5	4.9	8.4	0.7	0.5	.....	0.8	5.2	4.2	15.0
5	2 55	9 05	2 51a	9 10a	8.9	11.7	5.5	9.3	0.7	0.5	.....	0.9	5.8	4.6	14.5
6	3 07	9 14	3 04a	9 18a	9.3	12.3	5.8	9.8	0.7	0.5	0 47	0.9	6.2	4.8	14.5
7	3 35	9 47	3 31a	9 52a	6.3	8.3	3.9	6.6	0.6	0.4	.....	0.7	4.2	3.3	14.5
8	3 50	10 08	3 46a	10 13a	9.6	12.6	5.9	10.0	0.7	0.5	.....	0.9	6.3	5.0	15.0
9	4 25	10 44	4 21a	10 49a	9.6	12.7	5.9	10.0	0.7	0.5	.....	0.9	6.4	5.0	15.0
10	3 35	9 53	3 32a	9 57a	12.7	16.8	7.8	12.8	0.7	0.5	.....	0.9	8.4	6.3	15.0
11	3 38	10 05	3 35a	10 09a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	15.0
12	4 14	10 57	4 11a	11 01a	12.6	16.6	7.7	12.7	0.7	0.5	.....	0.9	8.3	6.3	14.5
13	4 35	11 28	4 32a	11 32a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	14.5
14	4 51	11 55	4 49a	11 59a	13.7	18.1	8.4	13.8	0.8	0.5	.....	0.9	9.0	6.8	14.5
15	5 17	0 10	5 14a	0 14a	12.6	16.6	7.7	12.7	0.7	0.5	.....	0.9	8.3	6.3	14.5
16	6 30	0 12	6 27a	0 16a	11.6	15.3	7.1	11.7	0.7	0.5	.....	0.9	7.6	5.8	14.5
17	3 25	9 42	3 22a	9 46a	10.0	13.2	6.2	10.1	0.6	0.4	.....	0.8	6.6	5.0	15.0
18	3 27	9 22	3 25a	9 26a	12.6	16.6	7.7	12.7	0.7	0.5	0 57	0.9	8.3	6.3	15.0
19	3 45	9 55	3 42a	9 59a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	15.0
20	3 27	9 22	3 25a	9 26a	12.6	16.6	7.7	12.7	0.7	0.5	0 57	0.9	8.3	6.3	15.0
21	3 00	9 23	2 57a	9 27a	12.7	16.8	7.8	12.8	0.7	0.5	.....	0.9	8.4	6.3	15.0
22	3 20	9 44	3 17a	9 48a	9.6	12.7	5.9	9.7	0.6	0.4	.....	0.8	6.4	4.8	15.5
23	3 20	9 42	3 17a	9 46a	10.9	14.4	6.7	11.0	0.7	0.4	.....	0.8	7.2	5.4	15.5
24	3 18	9 40	3 15a	9 44a	11.1	14.7	6.8	11.2	0.7	0.4	.....	0.8	7.4	5.5	16.0
25	3 00	9 21	2 57a	9 25a	9.5	12.6	5.8	9.6	0.6	0.4	.....	0.8	6.3	4.7	16.0
26	3 05	9 26	3 02a	9 30a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	16.0
27	3 00	9 21	2 57a	9 25a	12.5	16.5	7.7	12.6	0.7	0.5	.....	0.9	8.2	6.2	16.0
28	3 35	9 56	3 32a	10 00a	12.6	16.6	7.7	12.7	0.7	0.5	.....	0.9	8.3	6.3	16.0
29	4 18	10 39	4 15a	10 43a	12.9	17.0	7.9	13.0	0.7	0.5	.....	0.9	8.5	6.4	16.0
30	5 00	11 28	4 57a	11 32a	12.3	16.3	7.6	12.4	0.7	0.5	.....	0.9	8.2	6.1	15.5
31	5 50	12 28	5 47a	12 32a	12.5	16.5	7.7	12.6	0.7	0.5	.....	0.9	8.2	6.2	15.5
32	3 15	9 38	3 12a	9 42a	12.6	16.6	7.7	12.7	0.7	0.5	.....	0.9	8.3	6.3	16.0
33	3 25	9 47	3 22a	9 51a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	16.0
34	3 30	9 53	3 27a	9 57a	12.7	16.8	7.8	12.8	0.7	0.5	.....	0.9	8.4	6.3	16.0
35	3 45	10 08	3 42a	10 12a	12.6	16.6	7.7	12.7	0.7	0.5	.....	0.9	8.3	6.3	16.5
36	5 47	12 11	5 44a	12 15a	12.0	15.8	7.4	12.1	0.7	0.5	.....	0.9	7.9	6.0	16.0
37	4 00	10 23	3 57a	10 27a	12.3	16.2	7.6	12.4	0.7	0.5	.....	0.9	8.1	6.1	16.5
38	3 30	9 53	3 27a	9 57a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	16.5
39	3 35	9 58	3 32a	10 02a	12.8	16.9	7.9	12.9	0.7	0.5	.....	0.9	8.4	6.4	16.5
40	3 20	9 46	3 17a	9 50a	12.6	16.7	7.7	12.7	0.7	0.5	.....	0.9	8.4	6.3	16.0
41	3 25	9 50	3 22a	9 54a	12.6	16.6	7.7	12.7	0.7	0.5	.....	0.9	8.3	6.3	16.5
42	3 05	9 32	3 03a	9 36a	10.4	13.8	6.3	10.6	0.6	0.5	.....	0.7	6.9	5.0	16.5
43	3 09	9 36	3 07a	9 40a	10.4	13.8	6.3	10.6	0.6	0.5	.....	0.7	6.9	5.0	16.5
44	3 00	9 27	2 58a	9 31a	9.7	12.9	5.9	9.9	0.6	0.4	.....	0.7	6.4	4.7	16.5
45	3 00	9 27	2 58a	9 31a	9.8	13.0	6.0	10.0	0.6	0.5	.....	0.7	6.5	4.8	17.0
46	3 15	9 43	2 13a	9 47a	11.6	15.3	7.1	11.8	0.7	0.5	.....	0.8	7.6	5.6	17.0
47	3 20	9 46	2 18a	9 50a	11.5	15.2	7.0	11.7	0.7	0.5	.....	0.8	7.6	5.6	17.0
48	3 05	9 34	2 03a	9 38a	10.0	13.3	6.1	10.2	0.6	0.5	.....	0.7	6.6	4.8	17.0
49	3 04	9 31	3 02a	9 35a	8.4	11.1	5.1	8.6	0.6	0.4	.....	0.7	5.6	4.1	17.0
50	3 25	9 53	3 23a	9 56a	13.0	17.2	7.9	12.8	0.7	0.5	.....	0.8	8.6	6.4	17.5
51	3 20	9 48	3 18a	9 51a	13.8	18.3	8.4	13.6	0.7	0.5	.....	0.9	9.2	6.8	17.0
52	3 35	10 02	3 33a	10 05a	13.7	18.2	8.3	13.5	0.7	0.5	.....	0.9	9.1	6.8	17.5
53	3 23	9 45	3 21a	9 48a	14.7	19.5	9.0	14.5	0.8	0.6	1 06	0.9	9.8	7.2	17.5
54	3 30	9 55	3 28a	9 58a	14.6	19.3	8.9	14.4	0.8	0.6	.....	0.9	9.6	7.1	17.5
55	3 45	10 10	3 43a	10 13a	14.5	19.2	8.8	14.3	0.8	0.6	.....	0.9	9.6	7.1	17.5
56	3 35	10 00	3 33a	10 03a	14.3	18.9	8.7	14.1	0.8	0.6	.....	0.9	9.4	7.0	18.0
57	4 00	10 25	3 58a	10 28a	15.6	20.6	9.5	15.4	0.8	0.6	.....	0.9	10.3	7.6	17.5
58	4 35	11 00	4 33a	11 03a	16.6	22.0	10.1	16.4	0.8	0.6	.....	0.9	11.0	8.1	17.0
59	4 40	11 05	4 38a	11 08a	16.5	21.9	10.0	16.3	0.8	0.6	.....	0.9	11.0	8.1	17.0
60	5 00	11 25	4 58a	11 28a	17.4	23.1	10.6	17.2	0.8	0.6	.....	1.0	11.6	8.6	17.0
61	5 10	11 35	5 08a	11 38a	17.6	23.3	10.7	17.4	0.8	0.6	.....	1.0	11.6	8.6	17.0
62	5 15	11 40	5 13a	11 43a	18.7	24.8	11.4	18.5	0.9	0.6	.....	1.0	12.4	9.2	17.0
63	5 25	11 50	5 23a	11 53a	17.1	22.7	10.4	16.9	0.8	0.6	.....	0.9	11.4	8.4	17.0
64	5 35	12 00	5 33a	12 02a	22.7	30.4	13.3	22.2	0.8	0.9	.....	1.1	15.2	11.1	17.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	FRANCE—continued.										
	English Channel—Continued.	*North.*	*West.*				*Paris time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Brehat	48 51	3 00	0 12	Brest	273	+2 04	+2 07	+ 9.4	+1.4	1.55
2	Lézardrieux	48 48	3 01	0 12	Brest	273	+2 06	+2 09	+11.0	+1.6	1.63
3	Paimpol	48 47	3 02	0 12	Brest	273	+2 09	+2 12	+10.4	+1.6	1.60
4	Portrieux	48 39	2 49	0 11	Brest	273	+2 10	+2 15	+10.1	+1.5	1.59
5	Binic Harbor	48 36	2 49	0 11	Brest	273	+2 12	+2 20	+ 9.0	+1.4	1.52
6	Légué or Port de St. Briene	48 32	2 43	0 11	Brest	273	+2 10	+2 24	+10.8	+1.6	1.62
7	Dahouet	48 30	2 36	0 10	Brest	273	+2 06	+2 22	+10.4	+1.6	1.60
8	Erquy	48 38	2 26	0 10	Brest	273	+2 08	+2 27	+11.6	+1.8	1.67
9	St. Malo	48 39	2 02	0 08	Brest	273	+2 10	+2 34	+14.2	+2.2	1.83
10	Cancale	48 40	1 51	0 07	Brest	273	+2 08	+2 34	+14.5	+2.7	1.87
11	Granville	48 50	1 36	0 06	Brest	273	+2 15	+2 37	+15.0	+2.2	1.86
12	Regneville	49 00	1 35	0 06	Brest	273	+2 22	+2 39	+13.2	+2.0	1.76
13	St. Germain	49 14	1 35	0 06	Brest	273	+2 27	+2 41	+12.2	+1.8	1.71
14	Carteret	49 22	1 47	0 07	Brest	273	+2 35	+2 44	+ 9.8	+1.4	1.56
15	Dielette	49 33	1 52	0 07	Brest	273	+2 47	+2 59	+ 6.2	+1.0	1.36
16	Chausey Islands	48 52	1 49	0 07	Brest	273	+2 21	+2 33	+13.2	+2.0	1.76
17	Les Minquieres	48 59	2 04	0 08	Brest	273	+2 13	+2 06	+13.2	+2.0	1.76
18	St. Hèlier, Jersey Island	49 10	2 07	0 08	Brest	273	+2 36	+2 30	+10.1	+1.5	1.59
19	St. Peter Port, Guernsey Island	49 27	2 32	0 10	Brest	273	+2 41	+2 39	+ 5.6	+0.8	1.32
20	Casquets Islands	49 43	2 23	0 10	Brest	273	+2 49	+2 47	− 3.6	+0.6	0.79
21	Alderney, Alderney Island	49 43	2 12	0 09	Brest	273	+2 49	+2 47	− 2.2	−0.2	0.87
22	Omonville	49 43	1 51	0 07	Havre	277	−1 55	−3 07	− 6.6	−0.6	0.66
23	Cherbourg	49 39	1 37	0 06	Havre	277	−1 27	−2 24	− 4.4	−0.4	0.76
24	Barfleur	49 40	1 16	0 05	Havre	277	−0 44	−1 32	− 5.0	−0.4	0.73
25	La Hougue	49 34	1 16	0 05	Havre	277	−0 45	−1 24	− 3.8	−0.2	0.80
26	Port-en-Bessin	49 21	0 46	0 03	Havre	277	−0 40	−1 11	− 2.4	0.0	0.86
27	Courseulles	49 20	0 27	0 02	Havre	277	−0 21	−0 46	− 2.4	−0.2	0.88
28	Oystreham	49 17	0 15	0 01	Havre	277	−0 11	−0 15	− 1.4	−0.2	0.92
29	Dives	49 18	0 05	0 00	Havre	277	−0 02	−0 07	− 1.4	−0.2	0.92
			East.								
30	HAVRE, Seine River	49 29	0 06	0 00	Havre	277	0 00	0 00	0.0	0.0	1.00
31	Honfleur, Seine River	49 25	0 13	0 01	Havre	277	+0 07	+0 04	+ 0.3	+0.1	1.01
32	Quillebœuf, Seine River	49 28	0 31	0 02	Havre	277	+0 34	+0 19	−11.6	−1.4	0.42
33	Fécamp	49 46	0 22	0 01	Havre	277	+1 04	+0 49	+ 0.7	+0.1	1.03
34	St. Valery-en-Caux	49 52	0 42	0 03	Havre	277	+1 29	+1 22	+ 3.8	+0.6	1.20
35	Dieppe	49 56	1 05	0 04	Havre	277	+1 55	+1 38	+ 4.2	+0.6	1.21
36	Treport	50 04	1 22	0 05	Havre	277	+2 04	+1 35	+ 5.2	+0.8	1.25
37	St. Valery-sur-Somme	50 11	1 38	0 07	Dover	297	+0 36	+0 36	+ 7.7	+0.9	1.45
38	Boulogne	50 44	1 35	0 06	Dover	297	+0 17	+0 17	+ 4.8	+0.6	1.28
39	Cape Griznez	50 52	1 35	0 06	Dover	297	+0 16	+0 16	+ 1.6	+0.2	1.09
40	Calais	50 58	1 51	0 07	Dover	297	+0 37	+0 37	+ 1.1	+0.1	1.07
41	Gravelines	51 01	2 06	0 08	Dover	297	+0 56	+0 39	− 0.7	−0.1	0.96
42	Dunkerque	51 03	2 21	0 09	Dover	297	+0 54	+0 20	− 2.6	−0.4	0.85
	THE BRITISH ISLANDS.										
	Scotland, east coast.		*West.*				*Greenwich time.*				
43	Duncansby Head	58 39	3 00	0 12	Edinburgh	281	−4 24	−4 25	− 6.2	−0.4	0.56
44	Wick	58 26	3 05	0 12	Edinburgh	281	−3 14	−3 15	− 6.1	−0.3	0.56
45	Doornoch Road	57 52	4 02	0 16	Edinburgh	281	−2 30	−2 31	− 5.3	−0.3	0.62
46	Cromarty	57 41	4 02	0 16	Edinburgh	281	−2 35	−2 36	− 2.8	0.0	0.77
47	Inverness	57 28	4 14	0 17	Edinburgh	281	−1 49	−1 50	− 4.2	−0.2	0.69
48	Banff	57 40	2 31	0 10	Edinburgh	281	−1 43	−1 44	− 6.0	−0.4	0.58
49	Peterhead	57 30	1 46	0 07	Edinburgh	281	−1 40	−1 41	− 4.7	−0.6	0.68
50	Aberdeen	57 09	2 07	0 08	Edinburgh	281	−1 13	−1 14	− 4.3	−0.6	0.71
51	Stonehaven	56 58	2 12	0 09	Edinburgh	281	−1 02	−1 03	− 2.4	−0.3	0.84
52	Montrose	56 42	2 26	0 10	Edinburgh	281	+0 06	+0 05	− 2.6	−0.3	0.82
53	Arbroath	56 33	2 35	0 10	Edinburgh	281	−0 36	−0 37	− 2.5	−0.4	0.83
54	Tay River Entrance	56 27	2 43	0 11	Edinburgh	281	−0 04	−0 05	− 0.8	−0.1	0.95
55	Dundee	56 28	2 58	0 12	Edinburgh	281	+0 23	+0 22	− 2.2	−0.3	0.85
56	Fife Ness	56 17	2 35	0 10	Edinburgh	281	−0 01	−0 02	− 1.8	−0.3	0.88
57	Burntisland, Firth of Forth	56 04	3 14	0 13	Edinburgh	281	+0 16	+0 15	− 0.4	−0.1	0.98
58	Alloa, Firth of Forth	56 08	3 52	0 15	Edinburgh	281	+1 22	+1 21	+ 0.7	0.0	1.05
59	Granton, Firth of Forth	55 59	3 15	0 13	Edinburgh	281	+0 12	+0 11	− 0.6	−0.1	0.96
60	EDINBURGH (Leith), Firth of Forth	55 59	3 10	0 13	Edinburgh	281	0 00	0 00	0.0	0.0	1.00
61	Dunbar	56 00	2 31	0 10	Edinburgh	281	−0 03	−0 04	− 2.0	−0.3	0.86
62	Eyemouth	55 52	2 05	0 08	Edinburgh	281	+0 02	+0 01	− 2.2	−0.3	0.85

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	5 33	11 58	5 31a	12 00a	22.8	30.5	13.3	22.3	0.8	0.9	.....	1.1	15.2	11.2	17.0
2	5 35	12 00	5 33a	12 02a	24.0	32.2	14.0	23.5	0.8	1.0	.....	1.1	16.1	11.7	17.0
3	5 38	12 03	5 36a	12 05a	23.6	31.7	13.8	23.1	0.8	1.0	.....	1.1	15.8	11.5	17.0
4	5 40	12 07	5 38a	12 09a	23.3	31.3	13.6	22.8	0.8	0.9	.....	1.1	15.6	11.4	16.5
5	5 42	12 12	5 40a	12 14a	22.4	30.0	13.1	21.9	0.8	0.9	.....	1.1	15.0	11.0	16.5
6	5 40	12 16	5 38a	12 18a	23.8	31.9	13.9	23.3	0.8	1.0	.....	1.1	16.0	11.6	16.5
7	5 37	12 15	5 35a	12 17a	23.6	31.7	13.8	23.1	0.8	1.0	.....	1.1	15.8	11.5	16.5
8	5 39	12 20	5 37a	12 22a	24.6	33.0	14.4	24.1	0.8	1.0	.....	1.2	16.5	12.0	16.5
9	5 43	0 04	5 41a	0 06b	26.8	36.0	15.7	26.3	0.9	1.0	2 39	1.2	18.0	13.2	16.0
10	5 42	0 05	5 40a	0 07b	27.5	36.8	16.1	27.0	0.9	1.0	.....	1.2	18.4	13.5	16.0
11	5 50	0 09	5 48a	0 11b	27.4	36.7	16.0	26.9	0.9	1.0	.....	1.2	18.4	13.4	16.0
12	5 57	0 11	5 55a	0 13b	25.9	34.7	15.2	25.4	0.9	1.0	.....	1.2	17.4	12.7	16.0
13	6 02	0 13	6 00a	0 15b	25.1	33.7	14.7	24.6	0.8	1.0	.....	1.2	16.8	12.3	16.0
14	6 07	0 15	6 05a	0 17b	23.0	30.8	13.5	22.5	0.8	0.9	.....	1.1	15.4	11.3	16.0
15	6 21	0 30	6 19a	0 32b	20.0	26.8	11.7	19.5	0.8	0.9	.....	1.0	13.4	9.8	16.0
16	5 55	0 04	5 53a	0 06b	25.9	34.7	15.2	25.4	0.9	1.0	.....	1.2	17.4	12.7	16.0
17	5 46	12 01	5 44a	12 03a	25.9	34.7	15.2	25.4	0.9	1.0	.....	1.2	17.4	12.7	16.0
18	6 09	0 00	6 07a	0 02b	23.3	31.2	13.6	22.8	0.8	0.9	.....	1.1	15.6	11.4	16.5
19	6 12	0 07	6 08a	0 19b	19.4	26.0	11.5	19.7	0.6	1.2	.....	1.3	13.0	10.0	16.5
20	6 20	0 15	6 16a	0 27b	11.6	15.5	6.9	11.8	0.5	0.9	.....	1.0	8.8	6.0	16.5
21	6 21	0 16	6 17a	0 28b	12.8	17.2	7.6	13.0	0.5	1.0	.....	1.0	8.6	6.6	16.5
22	7 01	1 00	6 57a	1 12b	11.4	15.2	6.8	11.6	0.5	0.9	.....	1.0	7.6	5.9	16.5
23	7 30	1 44	7 26a	1 55b	13.2	17.6	7.8	13.4	0.5	1.0	3 16	1.0	8.8	6.8	16.0
24	8 14	2 37	8 10a	2 49b	12.7	17.0	7.5	12.9	0.5	1.0	.....	1.0	8.5	6.6	16.0
25	8 13	2 45	8 09a	2 57b	13.8	18.5	8.2	14.0	0.5	1.0	.....	1.1	9.2	7.1	16.0
26	8 20	3 00	8 16a	3 12b	14.9	20.0	8.9	15.1	0.5	1.1	.....	1.1	10.0	7.7	15.5
27	8 40	3 26	8 37a	3 26b	15.2	19.8	9.7	16.2	0.3	0.8	.....	0.9	9.9	8.2	15.5
28	8 53	3 58	8 50a	3 58b	16.0	20.8	10.2	17.1	0.3	0.9	.....	0.9	10.4	8.7	15.5
29	9 01	4 07	8 58a	4 07b	16.0	20.8	10.2	17.1	0.3	0.9	.....	0.9	10.4	8.7	15.5
30	9 03	4 14	9 00a	4 14b	17.3	22.5	11.0	18.4	0.4	0.9	4 18	0.9	11.2	9.3	15.0
31	9 09	4 17	9 06a	4 17b	17.5	22.8	11.1	18.7	0.4	0.9	.....	0.9	11.4	9.4	15.0
32	9 35	4 31	9 31a	4 32b	7.2	9.4	4.6	7.9	0.2	0.6	.....	0.6	4.7	4.1	15.0
33	10 06	5 02	10 03a	5 02b	17.9	23.3	11.4	19.1	0.4	0.9	.....	0.9	11.6	9.6	15.0
34	10 29	5 33	10 26a	5 33b	20.6	26.8	13.1	21.8	0.4	1.0	.....	1.0	13.4	11.1	15.0
35	10 54	5 48	10 51a	5 48b	20.9	27.3	13.3	22.1	0.4	1.0	.....	1.0	13.6	12.2	15.0
36	11 02	5 44	10 59a	5 44b	21.7	28.3	13.8	22.9	0.4	1.0	.....	1.0	14.2	11.6	14.5
37	11 38	6 12	11 36a	6 14b	22.0	28.5	14.5	21.5	0.6	0.7	.....	0.8	14.2	10.7	14.5
38	11 18	5 52	11 16a	5 54b	19.4	25.2	12.8	19.0	0.5	0.6	.....	0.7	12.6	9.5	14.5
39	11 17	5 51	11 15a	5 53b	16.6	21.5	11.0	16.2	0.5	0.6	.....	0.7	10.8	8.1	14.5
40	11 39	6 13	11 37a	6 15b	16.2	21.0	10.7	15.8	0.5	0.6	.....	0.7	10.5	7.9	14.5
41	11 59	6 16	11 57a	6 18b	14.6	19.0	9.6	14.2	0.5	0.5	.....	0.6	9.5	7.1	14.5
42	11 58	5 58	11 56a	6 00b	12.9	16.8	8.5	12.5	0.4	0.5	.....	0.6	8.4	6.3	14.5
43	10 00	3 47	9 56a	3 50b	7.3	9.8	4.2	8.5	0.6	1.0	.....	0.8	4.9	4.2	20.0
44	11 10	4 57	11 06a	5 00b	7.3	9.9	4.2	8.6	0.6	1.0	.....	0.8	5.0	4.3	20.0
45	11 50	5 37	11 55a	5 40b	8.0	10.8	4.6	9.4	0.7	1.1	.....	0.9	5.4	4.7	20.0
46	11 45	5 32	11 40a	5 35b	10.1	13.7	5.9	13.9	0.7	1.2	.....	1.0	6.8	6.9	20.0
47	0 05	6 17	0 00b	6 20b	8.9	12.0	5.2	10.5	0.7	1.1	.....	1.0	6.0	5.2	19.0
48	0 18	6 30	0 13b	6 33b	7.5	10.1	4.4	8.8	0.6	1.0	.....	0.9	5.0	4.4	18.5
49	0 24	6 36	0 19b	6 39b	8.9	11.2	6.1	10.1	0.7	1.1	.....	1.0	5.6	5.0	18.5
50	0 50	7 02	0 45b	7 05b	9.2	11.7	6.4	10.5	0.7	1.1	.....	1.0	5.8	5.2	18.5
51	1 00	7 12	0 55b	7 15b	10.9	13.8	7.5	12.4	0.7	1.2	.....	1.1	6.9	6.2	19.0
52	2 07	8 19	2 02b	8 22b	10.7	13.6	7.4	12.2	0.7	1.2	.....	1.1	6.8	6.1	19.0
53	1 25	7 37	1 20b	7 40b	10.8	13.7	7.5	12.3	0.7	1.2	.....	1.1	6.8	6.2	19.0
54	1 56	8 08	1 51b	8 11b	12.3	15.5	8.5	13.9	0.8	1.3	.....	1.5	7.8	7.0	19.0
55	2 22	8 34	2 17b	8 37b	11.1	14.1	7.7	12.6	0.7	1.2	.....	1.2	7.0	6.3	19.0
56	2 00	8 12	1 15b	8 15b	11.4	14.4	7.9	12.9	0.7	1.2	.....	1.2	7.2	6.5	19.0
57	2 14	8 26	2 09b	8 29b	12.7	16.1	8.8	14.4	0.8	1.3	.....	1.5	8.0	7.2	19.0
58	3 18	9 30	3 13b	9 33b	13.7	17.3	9.5	15.5	0.8	1.3	.....	1.7	8.6	7.8	19.5
59	2 10	8 22	2 05b	9 25b	12.5	15.8	8.6	14.2	0.8	1.3	.....	1.5	7.9	7.1	19.0
60	1 58	8 11	1 55b	8 14b	13.0	16.5	8.9	14.8	0.8	1.3	.....	1.6	8.2	7.4	19.0
61	1 58	8 10	1 53b	8 13b	11.2	14.2	7.7	12.7	0.7	1.2	.....	1.2	7.1	6.3	18.5
62	2 05	8 17	2 00b	8 20b	11.1	14.0	7.7	12.6	0.7	1.2	.....	1.2	7.0	6.2	18.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	THE BRITISH ISLANDS—continued										
	England, east coast.	*North.*	*West.*				*Greenwich time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Berwick	55 46	1 59	0 08	Sheerness	289	+ 2 01	+ 2 25	− 1.8	+0.1	0.86
2	Holy Island	55 41	1 50	0 07	Sheerness	289	+ 2 12	+ 2 36	− 1.8	+0.1	0.86
3	Blyth	55 08	1 30	0 06	Sheerness	289	+ 2 56	+ 3 20	− 1.8	+0.1	0.86
4	North Shields	55 01	1 26	0 06	Sheerness	289	+ 3 02	+ 3 26	− 2.0	+0.1	0.85
5	Tyne River Entrance	55 01	1 25	0 06	Sheerness	289	+ 2 59	+ 3 23	− 1.6	+0.1	0.87
6	Newcastle, Tyne River	54 57	1 36	0 06	Sheerness	289	+ 3 13	+ 3 37	− 1.4	+0.2	0.88
7	Sunderland	54 55	1 21	0 05	Sheerness	289	+ 3 02	+ 3 26	− 2.3	0.0	0.83
8	Seaham	54 50	1 19	0 05	Sheerness	289	+ 3 04	+ 3 28	− 2.3	0.0	0.83
9	West Hartlepool	54 41	1 12	0 05	Sheerness	289	+ 3 11	+ 3 37	− 2.5	0.0	0.82
10	Whitby	54 30	0 37	0 02	Sheerness	289	+ 3 22	+ 3 46	− 1.8	+0.1	0.86
11	Scarborough	54 17	0 23	0 02	Sheerness	289	+ 3 48	+ 4 11	− 1.4	+0.2	0.88
12	Filey Bay	54 12	0 17	0 01	Sheerness	289	+ 3 56	+ 4 18	− 1.1	+0.2	0.91
13	Flamborough Head	54 07	0 05	0 00	Hull	285	− 2 05	− 2 02	− 3.8	−0.4	0.79
14	Bridlington	54 05	0 12	0 01	Hull	285	− 1 55	− 1 54	− 3.8	−0.4	0.79
15	Great Grimsby, Humber River	53 34	0 05	0 00	Hull	285	− 0 59	− 0 59	− 0.8	0.0	0.95
16	HULL, Humber River	53 44	0 20	0 01	Hull	285	0 00	0 00	0.0	0.0	1.00
17	Goole, Humber River	53 41	0 53	0 04	Hull	285	+ 0 55	+ 1 05	− 6.5	−0.7	0.64
			East.								
18	Spurn Point, Humber River	53 35	0 07	0 00	Hull	285	− 1 09	− 1 09	− 1.5	−0.2	0.92
19	Boston Dock	52 57	0 00	0 00	Hull	285	− 0 05	− 0 05	+ 0.6	+0.1	1.03
20	Lynn Deep	53 01	0 26	0 02	Hull	285	− 0 37	− 0 37	+ 2.4	+0.3	1.13
21	Wells Harbor	52 57	0 50	0 03	Hull	285	+ 0 22	+ 0 22	− 7.4	−0.8	0.58
22	Blakeney Bar	52 58	1 00	0 04	Hull	285	− 0 09	− 0 09	− 4.7	−0.5	0.74
23	Yarmouth Road	52 35	1 44	0 07	Sheerness	289	+ 8 43	+ 9 00	− 9.8	−1.1	0.35
24	Lowestoft	52 29	1 45	0 07	Sheerness	289	+ 9 25	+ 9 42	− 9.5	−1.0	0.37
25	Orford Ness	52 05	1 34	0 06	Sheerness	289	+10 43	+11 01	− 8.0	− 0.9	0.47
26	Harwich	51 56	1 19	0 05	Sheerness	289	+11 36	+11 53	− 5.0	−0.6	0.67
27	Nore (light vessel), Thames River	51 29	0 48	0 03	Sheerness	289	+ 0 02	+ 0 19	− 1.4	−0.2	0.91
28	SHEERNESS, Thames River	51 27	0 45	0 03	Sheerness	289	0 00	0 00	0.0	0.0	1.00
29	Chatham, Thames River	51 23	0 30	0 02	Sheerness	289	+ 0 42	+ 0 59	+ 1.0	+0.1	1.07
30	Gravesend, Thames River	51 26	0 22	0 01	Sheerness	289	+ 0 34	+ 0 51	+ 1.4	+0.1	1.09
31	Woolwich, Thames River	51 29	0 04	0 00	Sheerness	289	+ 0 47	+ 1 23	+ 1.4	+0.1	1.09
32	Greenwich, Thames River	51 28	0 00	0 00	London Bridge	293	− 0 14	− 0 44	− 2.0	−0.1	0.93
			West.								
33	London Docks, Thames River	51 29	0 03	0 00	London Bridge	293	− 0 07	− 0 34	− 0.5	0.0	0.98
34	LONDON BRIDGE, Thames River	51 30	0 07	0 00	London Bridge	293	0 00	0 00	0.0	0.0	1.00
			East.								
35	Margate	51 23	1 23	0 06	Sheerness	289	− 1 11	− 0 33	− 1.6	+0.1	0.87
36	Ramsgate	51 20	1 25	0 06	Sheerness	289	− 1 22	− 0 22	− 0.2	+0.3	0.96
37	Deal	51 14	1 25	0 06	Sheerness	289	− 1 41	− 0 40	− 1.1	+0.2	0.91
	England, south coast.										
38	DOVER	51 07	1 19	0 05	Dover	297	0 00	0 00	0.0	0.0	1.00
39	Folkestone	51 05	1 12	0 05	Dover	297	− 0 12	− 0 58	+ 0.1	0.0	1.01
40	Dungeness	50 55	0 58	0 04	Dover	297	− 0 33	− 1 19	+ 1.6	+0.2	1.09
41	Rye Bay	50 56	0 47	0 03	Dover	297	+ 0 03	− 0 43	+ 1.8	+0.2	1.11
42	Hastings	50 51	0 36	0 02	Dover	297	− 0 23	− 1 09	+ 3.6	+0.4	1.20
43	Beachy Head	50 44	0 13	0 01	Dover	297	+ 0 08	− 0 41	+ 0.1	0.0	1.01
44	Newhaven	50 47	0 04	0 00	Dover	297	+ 0 37	− 0 09	+ 0.1	0.0	1.01
			West.								
45	Brighton	50 49	0 08	0 01	Dover	297	+ 0 02	− 0 44	− 0.2	0.0	0.99
46	Shoreham	50 50	0 15	0 01	Dover	297	+ 0 21	− 0 25	− 1.7	−0.2	0.90
47	Littlehampton	50 48	0 32	0 02	Dover	297	+ 0 08	− 0 38	− 3.5	−0.5	0.80
48	Selsea Bill	50 44	0 47	0 03	Dover	297	+ 0 34	− 0 12	− 3.1	−0.4	0.82
49	Portsmouth	50 47	1 06	0 04	Dover	297	+ 0 31	− 1 15	− 5.8	−0.8	0.67
50	Calshot Castle	50 49	1 17	0 05	Dover	297	+ 0 21	− 0 25	− 5.0	−0.8	0.71
51	Southampton	50 54	1 24	0 06	Dover	297	+ 2 02	+ 1 16	− 6.1	−0.8	0.65
52	Cowes, Isle of Wight	50 45	1 18	0 05	Dover	297	+ 0 06	− 0 40	− 6.7	−0.9	0.61
53	Bembridge Point, Isle of Wight	50 41	1 04	0 04	Dover	297	− 0 10	− 0 56	− 5.3	−0.7	0.69
54	Yarmouth, Isle of Wight	50 41	1 31	0 06	Dover	297	− 1 08	− 1 54	−11.5	−1.5	0.34
55	Christchurch	50 44	1 46	0 07	Portland Br'kw	301	+ 3 28	+ 4 36	− 1.5	−0.4	0.72
56	Poole Entrance	50 40	1 56	0 08	Portland Br'kw	301	+ 1 29	+ 2 37	− 0.3	0.0	0.94
57	PORTLAND BREAKWATER	50 31	2 27	0 10	Portland Br'kw	301	0 00	0 00	0.0	0.0	1.00
58	Bridport	50 42	2 45	0 11	Portland Br'kw	301	− 0 33	− 0 25	+ 3.6	+0.9	1.66
59	Lyme Regis	50 43	2 56	0 12	Portland Br'kw	301	− 0 17	− 0 09	+ 3.8	+0.9	1.71
60	Exmouth	50 37	3 26	0 14	Brest	273	+ 2 39	+ 2 30	− 7.7	−1.1	0.55
61	Teignmouth	50 32	3 30	0 14	Brest	273	+ 2 09	+ 2 00	− 6.0	−0.8	0.65
62	Torquay, Torbay	50 27	3 32	0 14	Brest	273	+ 2 14	+ 2 05	− 5.4	−0.8	0.68
63	Dartmouth	50 21	3 34	0 14	Brest	273	+ 2 24	+ 2 15	− 4.8	−0.8	0.72
64	Start Point	50 13	3 38	0 15	Brest	273	+ 1 50	+ 1 41	− 4.2	−0.6	0.76

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	2 08	8 28	2 03b	8 31b	11.6	15.0	7.5	13.3	0.8	1.5	.....	1.2	7.5	6.8	18.0
2	2 20	8 40	2 15b	8 43b	11.6	15.0	7.5	13.3	0.8	1.5	.....	1.2	7.5	6.8	18.0
3	3 05	9 25	3 00b	9 28b	11.6	15.0	7.5	13.3	0.8	1.5	.....	1.2	7.5	6.8	17.5
4	3 11	9 31	3 06b	9 34b	11.4	14.8	7.4	13.1	0.8	1.5	.....	1.2	7.4	6.7	17.5
5	3 08	9 28	3 03b	9 31b	11.7	15.2	7.6	13.4	0.8	1.5	.....	1.2	7.6	6.8	17.5
6	3 22	9 42	3 14b	9 46b	11.9	15.5	7.7	13.7	0.8	1.6	.....	1.7	7.8	7.0	17.5
7	3 12	9 32	3 04b	9 37b	11.2	14.5	7.3	12.9	0.8	1.5	.....	1.7	7.2	6.6	17.5
8	3 14	9 34	3 06b	9 39b	11.2	14.5	7.3	12.9	0.8	1.5	.....	1.7	7.2	6.6	17.5
9	3 21	9 43	3 13b	9 48b	11.0	14.2	7.0	12.7	0.8	1.5	11 28	1.7	7.1	6.5	17.0
10	3 35	9 55	3 27b	10 00b	11.6	15.0	7.5	13.4	0.8	1.6	.....	1.7	7.5	6.9	17.0
11	4 01	10 20	3 53b	10 24b	11.9	15.5	7.7	13.7	0.8	1.6	.....	1.7	7.8	7.0	16.5
12	4 10	10 28	4 02b	10 33b	12.2	15.8	7.9	14.2	0.9	1.7	.....	1.8	7.9	7.3	16.5
13	4 20	10 36	4 13b	10 40b	12.5	15.8	8.8	12.6	0.5	1.2	.....	1.1	7.9	6.4	16.5
14	4 29	10 43	4 22b	10 47b	12.5	15.8	8.8	12.6	0.5	1.2	.....	1.1	7.9	6.4	16.5
15	5 26	11 39	5 19b	11 43b	15.1	19.1	10.6	15.2	0.6	1.3	.....	1.2	9.6	7.8	16.5
16	6 24	0 12	6 18b	0 15a	15.9	20.1	11.1	16.0	0.6	1.3	.....	1.2	10.1	8.1	16.5
17	7 16	1 14	7 08b	1 18a	10.1	12.8	7.1	10.2	0.5	1.1	.....	1.0	6.4	5.2	16.5
18	5 16	11 29	5 11b	11 32b	14.6	18.5	10.2	14.7	0.6	1.3	.....	0.9	9.2	7.5	16.0
19	6 20	0 08	6 14b	0 11a	16.4	20.8	11.5	16.5	0.6	1.3	.....	1.2	10.4	8.4	16.0
20	5 50	12 03	6 44b	12 06b	18.0	22.8	12.6	18.1	0.6	1.4	.....	1.3	11.4	9.2	15.5
21	6 50	0 38	6 42b	0 42a	9.3	11.8	6.5	9.4	0.5	1.0	.....	0.9	5.9	4.8	15.5
22	6 20	0 08	6 13b	0 12a	11.7	14.8	8.2	11.8	0.5	1.1	.....	1.0	7.4	6.0	15.0
23	9 05	2 53	9 15b	2 49a	4.7	5.8	3.4	5.8	0.3	1.0	.....	1.0	2.9	3.0	15.0
24	9 47	3 35	9 57b	3 31a	5.0	6.2	3.6	6.1	0.3	1.0	.....	1.0	3.1	3.2	15.0
25	11 05	4 53	11 14b	4 49a	6.3	7.8	4.5	7.6	0.4	1.2	.....	1.2	3.9	4.0	15.0
26	11 56	5 44	12 03b	5 41a	9.1	11.2	6.6	10.6	0.4	1.4	.....	1.4	5.6	5.6	15.0
27	0 20	6 33	0 26b	6 30b	12.3	15.2	8.9	13.9	0.4	1.6	.....	1.6	7.6	7.3	15.5
28	0 18	6 14	0 24b	6 12b	13.5	16.7	9.8	15.2	0.4	1.7	7 05	1.7	8.4	7.9	15.5
29	1 01	7 14	1 07b	7 11b	14.4	17.8	10.4	16.2	0.5	1.7	.....	1.7	8.9	8.4	15.5
30	0 55	7 08	1 01b	7 05b	14.7	18.2	10.6	16.6	0.5	1.8	.....	1.8	9.1	8.6	15.5
31	1 02	7 40	1 08b	7 37b	14.7	18.2	10.6	16.6	0.5	1.8	.....	1.8	9.1	8.6	15.5
32	1 10	7 46	1 06b	7 47b	15.8	18.8	12.6	17.4	0.4	1.6	.....	1.4	9.4	9.0	15.5
33	1 17	7 56	1 12b	7 57b	17.2	20.5	13.8	18.9	0.4	1.7	.....	1.4	10.2	9.7	16.0
34	1 24	8 30	1 20b	8 31b	17.6	20.9	14.1	19.3	0.4	1.7	8 56	1.4	10.4	10.0	16.0
35	11 35	5 43	11 30a	5 45b	11.7	15.2	7.6	13.3	0.4	1.0	.....	1.1	7.6	6.8	15.0
36	11 24	5 53	11 19a	5 55b	12.9	16.8	8.4	14.6	0.4	1.1	6 46	1.1	8.4	7.5	15.0
37	11 05	5 37	11 00a	5 39b	12.2	15.8	7.9	13.8	0.4	1.0	.....	1.1	7.9	7.0	15.0
38	11 09	5 43	11 07a	5 45b	15.2	19.8	10.0	16.7	0.4	0.5	7 54	0.7	9.9	8.4	15.0
39	10 57	4 45	10 55a	4 47b	15.3	19.8	10.1	16.9	0.5	0.5	.....	0.7	9.9	8.4	15.0
40	10 35	4 23	10 33a	4 25b	16.6	21.5	11.0	18.4	0.5	0.6	.....	0.7	10.8	9.2	15.0
41	11 10	4 58	11 08a	5 00b	16.8	21.8	11.1	18.6	0.5	0.6	.....	0.7	10.9	9.3	15.0
42	10 43	4 31	10 41a	4 33b	18.3	23.8	12.1	20.1	0.5	0.6	.....	0.7	11.9	10.0	15.5
43	11 10	4 58	10 08a	5 00b	15.3	19.8	10.1	16.9	0.5	0.5	.....	0.7	9.9	8.4	15.5
44	11 41	5 29	11 39a	5 31b	15.3	19.8	10.1	16.9	0.5	0.5	.....	0.7	9.9	8.4	15.5
45	11 05	4 53	11 03a	4 55b	15.0	19.5	9.9	16.6	0.5	0.5	.....	0.7	9.8	8.3	16.0
46	11 24	5 12	11 22a	5 14b	13.7	17.8	9.0	15.0	0.4	0.4	.....	0.6	8.9	7.4	16.0
47	11 10	4 58	11 08a	5 00b	12.2	15.8	8.1	13.5	0.4	0.4	.....	0.6	7.9	6.5	16.0
48	11 35	5 23	11 33a	5 25b	12.5	16.2	8.3	13.8	0.4	0.4	.....	0.6	8.1	6.8	16.0
49	11 31	4 19	11 29a	4 21b	10.2	13.2	6.7	11.5	0.4	0.4	.....	0.5	6.6	5.7	16.0
50	11 20	5 08	11 17a	5 11b	10.9	14.1	7.2	12.3	0.4	0.5	.....	0.6	7.0	5.2	16.5
51	0 35	6 48	0 33b	6 50b	9.9	12.8	6.5	11.2	0.4	0.4	.....	0.5	6.4	4.8	16.5
52	11 05	4 53	11 02a	4 55b	9.4	12.2	6.2	10.5	0.4	0.3	.....	0.5	6.1	4.6	16.5
53	10 50	4 38	10 47a	4 41b	10.6	13.8	7.0	12.0	0.4	0.5	.....	0.6	6.9	5.1	16.5
54	9 50	3 38	9 46a	3 42b	5.2	6.8	3.4	6.2	0.3	0.3	.....	0.4	3.4	2.5	16.5
55	10 00	4 48	9 48a	5 00b	3.0	4.8	0.8	3.5	0.6	0.5	.....	0.8	2.4	1.7	16.5
56	8 00	2 48	7 50a	2 58b	3.9	6.3	1.0	4.4	0.7	0.6	.....	0.9	3.2	2.2	16.5
57	6 29	0 09	6 19a	0 19b	4.2	6.7	1.0	4.7	0.7	0.6	15 58	0.9	3.4	2.3	17.0
58	5 55	12 08	5 48a	12 16a	6.9	11.1	1.7	7.6	0.9	0.8	.....	1.2	5.6	3.8	17.0
59	6 10	12 23	6 03a	12 31a	7.1	11.4	1.8	7.8	0.9	0.8	.....	1.2	5.7	3.9	17.0
60	6 15	0 03	6 11a	0 07b	8.1	10.8	4.9	8.2	0.6	0.4	.....	0.6	5.4	4.0	17.5
61	5 45	11 58	5 42a	12 02a	9.6	12.8	5.9	9.7	0.6	0.4	.....	0.7	6.4	4.8	17.5
62	5 50	12 03	5 47a	12 07a	10.0	13.4	6.1	10.1	0.7	0.4	.....	0.7	6.7	5.0	17.5
63	6 00	12 13	5 57a	12 17a	10.6	14.1	6.5	10.7	0.7	0.4	.....	0.7	7.0	5.3	17.5
64	5 25	11 38	5 22a	11 42a	11.2	14.9	6.8	11.3	0.7	0.4	.....	0.8	7.4	5.6	17.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	THE BRITISH ISLANDS—continued.										
	England, south coast—Continued.	*North.*	*West.*				*Greenwich time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Bolt Head	50 12	3 48	0 15	Brest	273	+1 55	+1 46	− 4.5	−0.7	0.74
2	Plymouth Breakwater	50 20	4 09	0 17	Brest	273	+1 47	+1 38	− 3.8	−0.6	0.78
3	Devonport	50 22	4 10	0 17	Brest	273	+1 57	+1 48	− 3.6	−0.6	0.79
4	East Looe	50 20	4 29	0 18	Brest	273	+1 38	+1 29	− 2.5	−0.3	0.85
5	Fowey	50 20	4 38	0 19	Brest	273	+1 29	+1 20	− 4.2	−0.6	0.76
6	Mevagissey	50 16	4 47	0 19	Brest	273	+1 19	+1 10	− 3.8	−0.6	0.77
7	Truro, town quay	50 15	5 04	0 20	Brest	273	+1 18	+1 09	− 8.4	−1.2	0.51
8	Falmouth	50 08	5 04	0 20	Brest	273	+1 10	+1 01	− 3.4	−0.4	0.80
9	Helford Entrance	50 06	5 06	0 20	Brest	273	+1 00	+0 51	− 3.8	−0.6	0.77
10	Coverack	50 02	5 07	0 20	Brest	273	+0 50	+0 41	− 4.6	−0.6	0.73
11	Lizard Head	49 58	5 13	0 21	Brest	273	+1 16	+1 07	− 4.8	−0.6	0.72
12	Penzance	50 07	5 32	0 22	Brest	273	+0 52	+0 43	− 3.1	−0.5	0.82
13	St. Agnes Island, Scilly Islands	49 54	6 21	0 25	Brest	273	+0 50	+0 41	− 3.2	−0.4	0.80
14	St. Mary Island, Scilly Islands	49 55	6 19	0 25	Brest	273	+0 47	+0 38	− 3.2	−0.4	0.80
15	Trescow Island, Scilly Islands	49 57	6 22	0 25	Brest	273	+0 42	+0 33	− 3.1	−0.5	0.82
	England, west coast.										
16	Cape Cornwall	50 08	5 43	0 23	Brest	273	+0 48	+0 39	− 1.2	−0.4	0.94
17	St. Ives	50 12	5 28	0 22	Brest	273	+1 02	+0 53	+ 1.2	0.0	1.09
18	Towan or New Quay	50 25	5 05	0 20	Brest	273	+0 58	+0 49	+ 1.8	0.0	1.12
19	Padstow Bay	50 34	4 55	0 20	Brest	273	+0 55	+0 46	+ 2.3	+0.1	1.15
20	Boscastle	50 41	4 43	0 19	Brest	273	+1 29	+1 20	+ 2.4	0.0	1.16
21	Budehaven	50 50	4 34	0 18	Brest	273	+1 58	+1 49	+ 3.0	+0.2	1.20
22	Lundy Island	51 10	4 40	0 19	Brest	273	+1 29	+1 20	+ 6.6	+0.6	1.41
23	Appledore, Torridge River	51 03	4 12	0 17	Brest	273	+2 12	+2 03	+ 3.0	+0.2	1.19
24	Bideford, Torridge River	51 00	4 13	0 17	Brest	273	+2 17	+2 08	− 3.0	−0.6	0.84
25	Barnstaple, Taw River	51 04	4 03	0 16	Brest	273	+2 41	+2 32	− 7.9	−1.3	0.55
26	Ilfracombe, Bristol Channel	51 12	4 07	0 16	Brest	273	+1 56	+1 47	+ 6.9	+0.7	1.42
27	Lynmouth, Bristol Channel	51 13	3 50	0 15	Brest	273	+2 15	+2 06	+ 9.8	+1.0	1.59
28	Minehead, Bristol Channel	51 13	3 28	0 14	Brest	273	+2 34	+2 25	+11.4	+1.2	1.69
29	Bridgewater Bar, Bristol Channel	51 12	3 03	0 12	Brest	273	+2 57	+2 48	+13.8	+1.6	1.83
30	Bridgewater, Bristol Channel	51 07	3 00	0 12	Brest	273	+4 07	+3 58	− 1.2	−0.4	0.94
31	Flatholm Island, Bristol Channel	51 23	3 07	0 12	Brest	273	+3 02	+2 53	+16.2	+1.8	1.97
32	Weston-super-Mare, Bristol Chan.	51 20	2 59	0 12	Brest	273	+3 00	+2 51	+15.6	+1.8	1.94
33	Bristol, Avon River	51 26	2 36	0 10	Brest	273	+3 20	+3 11	+10.5	+1.1	1.64
34	Chepstow, Severn River	51 37	2 39	0 11	Brest	273	+3 36	+3 27	+16.3	+1.9	1.98
35	Gloucester, Severn River	51 51	2 17	0 09	Brest	273	+5 49	+5 40	−12.4	−1.8	0.29
36	Newport, Severn River	51 34	2 59	0 12	Brest	273	+3 22	+3 13	+16.2	+1.8	1.97
	Wales.										
37	Cardiff, Bristol Channel	51 28	3 10	0 13	Brest	273	+3 08	+2 59	+14.9	+1.7	1.90
38	Nash Point, Bristol Channel	51 24	3 33	0 14	Brest	273	+2 34	+2 50	+11.9	+1.3	1.72
39	Swansea, Bristol Channel	51 37	3 56	0 16	Brest	273	+2 11	+2 02	+ 6.9	+0.7	1.42
40	Worms Head, Bristol Channel	51 33	4 19	0 17	Brest	273	+2 13	+2 04	+ 5.0	+0.4	1.31
41	Carmarthen, Towy River	51 50	4 19	0 17	Brest	273	+1 57	+1 48	+ 5.7	+0.5	1.35
42	Caldy Island	51 38	4 41	0 19	Brest	273	+2 09	+2 00	+ 5.2	+0.4	1.32
43	St. Anns Head, Milford Haven	51 40	5 10	0 21	Brest	273	+2 12	+2 03	+ 4.1	+0.3	1.26
44	Pembroke, Milford Haven	51 41	4 56	0 20	Brest	273	+2 11	+2 06	+ 2.8	+0.2	1.18
45	Smalls Light-House	51 43	5 40	0 23	Brest	273	+2 13	+2 04	+ 1.3	−0.1	1.10
46	Fishguard	51 59	4 57	0 20	Brest	273	+3 05	+2 56	− 6.4	−1.0	0.64
47	Cardigan	52 05	4 39	0 19	Brest	273	+3 13	+3 04	− 6.7	−1.1	0.67
48	New Quay	52 13	4 20	0 17	Brest	273	+3 47	+3 38	− 5.8	−1.0	0.74
49	Aberystwith	52 24	4 06	0 16	Brest	273	+3 51	+3 42	− 4.6	−0.8	0.74
50	Aberdovey	52 33	4 03	0 16	Brest	273	+4 01	+3 52	− 4.7	−0.9	0.74
51	Barmouth	52 43	4 04	0 16	Brest	273	+4 16	+4 07	− 4.6	−0.8	0.74
52	Pwllheli	52 54	4 26	0 18	Brest	273	+4 03	+3 54	− 4.0	−0.8	0.78
53	Bardsey Island	52 45	4 48	0 19	Brest	273	+3 53	+3 44	− 4.0	−0.8	0.78
54	Carnarvon, Menai Strait	53 07	4 19	0 17	Brest	273	+5 47	+5 38	− 3.4	−0.6	0.82
55	Beaumaris, Menai Strait	53 16	4 05	0 16	Brest	273	−5 44	−5 53	+ 3.4	+0.2	1.22
56	Holyhead	53 19	4 37	0 18	Brest	273	−5 57	−6 06	− 3.2	−0.6	0.83
57	Trwyn-Du Point	53 19	4 02	0 16	Liverpool	305	−0 54	−1 25	− 4.9	−0.7	0.80
58	Air Point, Dee River	53 20	3 19	0 13	Liverpool	305	−0 27	−0 58	− 2.4	−0.4	0.91
	England, west coast—Continued.										
59	Chester, Dee River	53 11	2 55	0 12	Liverpool	305	+1 17	+0 21	−15.7	−2.0	0.36
60	Helbre Island, Mersey River	53 24	3 00	0 12	Liverpool	305	−0 17	−0 27	− 0.8	−0.2	0.97
61	LIVERPOOL, Mersey River	53 24	3 00	0 12	Liverpool	305	0 00	0 00	0.0	0.0	1.00
62	Northwest Light Vessel	53 31	3 31	0 14	Liverpool	305	−0 16	−0 37	− 2.3	−0.3	0.91
63	Formby Point	53 32	3 11	0 13	Liverpool	305	−0 47	−1 18	− 1.8	−0.1	0.92

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.		Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LQW.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	HWI.	LWI.	HHWI.	LLWI.											
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	5 30	11 43	5 28a	11 47a	10.9	14.5	6.6	11.0	0.7	0.4	.....	0.7	7.2	5.4	17.5
2	5 20	11 33	5 18a	11 36a	11.5	15.3	7.0	11.6	0.7	0.4	.....	0.7	7.6	5.7	18.0
3	5 30	11 43	5 28a	11 46a	11.6	15.4	7.1	11.7	0.7	0.4	.....	0.7	7.7	5.8	18.0
4	5 10	11 23	5 08a	11 26a	12.5	16.7	7.6	12.6	0.7	0.5	.....	0.8	8.4	6.2	18.0
5	5 00	11 13	4 58a	11 17a	11.1	14.8	6.8	11.2	0.7	0.4	.....	0.7	7.4	5.5	18.0
6	4 50	11 03	4 48a	11 06a	11.4	15.2	7.0	11.5	0.7	0.4	.....	0.7	7.6	5.7	18.0
7	4 48	11 01	4 44a	11 05a	7.5	10.0	4.6	7.6	0.6	0.4	.....	0.6	5.0	3.7	18.0
8	4 40	10 53	4 37a	10 57a	11.8	15.8	7.2	11.9	0.7	0.4	.....	0.8	7.9	5.9	18.0
9	4 30	10 43	4 27a	10 46a	11.4	15.2	7.0	11.5	0.7	0.4	.....	0.7	7.6	5.7	18.0
10	4 20	10 33	4 17a	10 37a	10.7	14.3	6.5	10.8	0.7	0.4	.....	0.7	7.2	5.3	18.0
11	4 45	10 58	4 42a	11 02a	10.6	14.2	6.5	10.7	0.7	0.4	.....	0.7	7.1	5.3	18.0
12	4 20	10 33	4 17a	10 37a	12.1	16.1	7.4	12.2	0.7	0.5	.....	0.8	8.0	6.0	18.5
13	4 15	10 28	4 12a	10 32a	11.9	15.9	7.3	12.0	0.7	0.5	.....	0.8	8.0	5.9	19.0
14	4 12	10 25	4 09a	10 29a	11.9	16.0	7.3	12.0	0.7	0.5	.....	0.8	8.0	5.9	19.0
15	4 07	10 20	4 04a	10 24a	12.1	16.1	7.4	12.2	0.7	0.5	.....	0.8	8.0	6.0	19.0
16	4 15	10 28	4 10a	10 33a	13.8	17.9	9.0	13.2	0.8	0.8	.....	1.2	9.0	6.5	18.5
17	4 30	10 43	4 25a	10 47a	16.0	20.8	10.4	15.3	0.9	0.9	.....	1.2	10.4	7.6	18.5
18	4 28	10 41	4 23a	10 45a	16.5	21.4	10.7	15.8	0.9	0.9	.....	1.3	10.7	7.9	18.5
19	4 25	10 38	4 20a	10 42a	16.9	21.9	11.0	16.2	0.9	0.9	.....	1.3	11.0	8.1	18.0
20	5 00	11 13	4 55a	11 17a	17.1	22.0	11.1	16.2	0.9	0.9	.....	1.3	11.0	8.1	18.0
21	5 30	11 43	5 26a	11 47a	17.6	22.8	11.4	16.9	0.9	0.9	.....	1.3	11.4	8.4	18.0
22	5 00	11 13	4 56a	11 17a	20.7	26.9	13.5	20.0	1.0	1.0	.....	1.4	13.4	10.0	18.0
23	5 45	11 58	5 41a	12 02a	17.5	22.7	11.4	16.8	0.9	0.9	.....	1.3	11.4	8.4	18.0
24	5 50	12 03	5 45a	12 08a	12.3	16.0	8.0	11.7	0.8	0.8	.....	1.1	8.0	5.8	18.0
25	6 15	0 08	6 09a	0 09b	8.1	10.5	5.3	7.6	0.6	0.6	.....	0.9	5.2	3.8	18.0
26	5 30	11 43	5 26a	11 47a	20.9	27.1	13.6	20.1	1.0	1.0	.....	1.4	13.6	10.0	18.0
27	5 50	12 03	5 46a	12 06a	23.4	30.4	15.2	22.6	1.1	1.1	.....	1.5	15.2	11.3	18.0
28	6 10	12 23	6 06a	12 26a	24.8	32.2	16.1	24.0	1.1	1.1	.....	1.5	16.1	11.9	17.5
29	6 35	0 23	6 31a	0 26b	26.9	35.0	17.5	26.1	1.1	1.1	.....	1.6	17.5	13.0	17.5
30	7 45	1 33	7 40a	1 38b	13.8	17.9	9.0	13.2	0.8	0.8	.....	1.2	9.0	6.5	17.5
31	6 40	0 28	6 36a	0 31b	29.0	37.6	18.9	28.1	1.2	1.2	.....	1.7	18.8	14.0	17.5
32	6 38	0 26	6 34a	0 29b	28.5	37.0	18.5	27.6	1.2	1.2	.....	1.7	18.5	13.7	17.5
33	7 00	0 48	6 56a	0 51b	24.1	31.3	15.7	23.3	1.1	1.1	.....	1.5	15.6	11.6	17.0
34	7 15	1 03	7 11a	1 06b	29.1	37.8	18.9	28.2	1.2	1.2	.....	1.7	18.9	14.0	17.5
35	9 30	3 18	9 22a	3 25b	4.2	5.4	2.7	3.9	0.4	0.4	.....	0.6	2.7	1.9	17.0
36	7 00	0 48	6 56a	0 51b	29.0	37.7	18.9	28.1	1.2	1.2	.....	1.7	18.8	14.0	17.5
37	6 45	0 33	6 41a	0 36b	27.9	36.2	18.1	27.0	1.2	1.2	.....	1.7	18.1	13.4	17.5
38	6 10	0 23	6 06a	0 26b	25.3	32.8	16.4	24.4	1.1	1.1	.....	1.6	16.4	12.2	18.0
39	5 45	11 58	5 41a	12 01a	20.9	27.1	13.6	20.1	1.0	1.0	.....	1.5	13.6	10.0	18.0
40	5 46	11 59	5 42a	12 03a	19.3	25.0	12.5	18.4	1.0	1.0	.....	1.4	12.5	9.2	18.0
41	5 30	11 43	5 26a	11 47a	19.9	25.8	12.9	19.0	1.0	1.0	.....	1.4	12.9	9.6	18.5
42	5 40	11 53	5 36a	11 57a	19.5	25.3	12.7	18.7	1.0	1.0	.....	1.4	12.6	9.4	18.5
43	5 41	11 54	5 36a	11 58a	18.5	24.0	12.0	17.7	1.0	1.0	.....	1.4	12.0	9.8	19.0
44	5 41	11 58	5 37a	12 02a	17.4	22.6	11.3	16.7	0.9	0.9	.....	1.3	11.3	8.3	19.0
45	5 40	11 53	5 35a	11 57a	16.1	20.9	10.5	15.4	0.9	0.9	.....	1.3	10.4	7.6	19.0
46	6 35	0 23	6 29a	0 29b	9.4	12.2	6.1	8.9	0.7	0.7	.....	1.0	6.1	4.4	19.0
47	6 44	0 32	6 38a	0 38b	9.1	11.8	5.9	8.6	0.7	0.7	.....	1.0	5.9	4.3	18.5
48	7 20	1 08	7 14a	1 13b	9.9	12.9	6.4	9.4	0.7	0.7	.....	1.0	6.4	4.7	18.5
49	7 25	1 13	7 19a	1 18b	10.9	14.2	7.1	10.4	0.7	0.7	.....	1.1	7.1	5.1	18.5
50	7 35	1 23	7 29a	1 28b	10.9	14.1	7.1	10.4	0.7	0.7	.....	1.1	7.0	5.1	18.5
51	7 50	1 38	7 44a	1 43b	10.9	14.2	7.1	10.4	0.7	0.7	.....	1.1	7.1	5.1	18.5
52	7 35	1 23	7 29a	1 28b	11.4	14.8	7.4	10.8	0.8	0.8	.....	1.1	7.4	5.4	19.0
53	7 24	1 12	7 18a	1 17b	11.5	14.9	7.5	10.9	0.8	0.8	.....	1.1	7.4	5.5	19.0
54	9 20	3 08	9 15a	3 13b	12.0	15.6	7.8	11.4	0.8	0.8	.....	1.1	7.8	5.7	19.0
55	10 15	4 03	10 11a	4 07b	17.9	23.2	11.6	17.2	0.9	0.9	.....	1.3	11.6	8.6	19.0
56	10 00	3 48	9 55a	3 53b	12.2	15.8	7.9	11.6	0.8	0.8	.....	1.1	7.9	5.8	19.0
57	10 10	3 58	10 06a	4 03b	17.1	21.9	11.5	18.6	1.0	1.0	.....	1.4	11.0	9.3	19.0
58	10 40	4 28	10 36a	4 33b	19.3	24.8	12.9	20.9	1.1	1.1	.....	1.5	12.4	10.6	18.0
59	0 00	5 48	−0 06a	5 56b	7.6	9.8	5.1	8.6	0.7	0.7	.....	0.9	4.9	4.3	18.0
60	10 51	5 00	10 47a	5 04b	20.7	26.5	13.8	22.3	1.1	1.1	7 50	1.6	13.3	11.2	18.0
61	11 08	5 27	11 05a	5 30b	21.3	27.6	14.0	23 1	1.0	1.0	8 04	1.5	13.8	11.6	18.0
62	10 50	4 48	10 47a	4 51b	19.3	25.0	12.7	21.0	1.0	1.0	.....	1.4	12.5	10.5	18.5
63	10 20	4 08	10 17a	4 11b	19.6	25.5	12.9	21.3	1.0	1.0	.....	1.4	12.8	10.7	18.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	THE BRITISH ISLANDS—continued.										
	England, west coast—Continued.	*North.*	*West.*				*Greenwich time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Stanner Point, Ribble River	53 45	3 01	0 12	Liverpool	305	−0 28	−0 59	− 1.9	−0.2	0.92
2	Preston, Ribble River	53 45	2 42	0 11	Liverpool	305	−0 04	−0 35	− 9.5	−1.2	0.61
3	Fleetwood, Morecambe Bay	53 56	3 00	0 12	Liverpool	305	−0 08	−0 39	− 0.2	0.0	0.99
4	Lancaster, Lune River	54 03	2 48	0 11	Liverpool	305	−0 04	−0 35	−16.9	−2.2	0.31
5	Barrow, Piel Harbor	54 07	3 14	0 13	Liverpool	305	+0 48	+0 17	+ 0.1	+0.1	1.00
6	Whitehaven, Solway Firth	54 33	3 36	0 14	Liverpool	305	−0 06	−0 37	− 1.5	−0.1	0.93
7	Workington, Solway Firth	54 39	3 35	0 14	Liverpool	305	−0 16	−0 47	− 1.7	−0.2	0.93
8	Maryport, Solway Firth	54 43	3 30	0 14	Liverpool	305	+0 04	−0 27	− 2.5	−0.3	0.90
9	Silloth, Solway Firth	54 52	3 24	0 14	Liverpool	305	+0 19	−0 12	− 1.7	−0.2	0.93
10	Port Carlisle, Solway Firth	54 56	3 13	0 13	Liverpool	305	+1 18	+0 22	− 6.9	−0.9	0.72
	Isle of Man.										
11	Ayre Point	54 25	4 22	0 17	Liverpool	305	−0 08	−0 39	− 7.0	−0.9	0.71
12	Ramsey	54 19	4 22	0 17	Liverpool	305	−0 08	−0 34	− 6.3	−0.8	0.74
13	Douglas	54 09	4 28	0 18	Liverpool	305	−0 02	−0 33	− 6.3	−0.8	0.74
14	Castletown	54 04	4 39	0 19	Liverpool	305	−0 03	−0 34	− 7.0	−0.9	0.71
15	Peel	54 14	4 42	0 19	Liverpool	305	−0 05	−0 36	−10.2	−1.3	0.58
	Scotland, west coast.										
16	Barnkirk or Annan Foot	54 58	3 16	0 13	Greenock	309	+0 25	+0 39	+15.6	+1.6	2.54
17	Dumfries, Nith R., Solway Firth	55 04	3 36	0 14	Greenock	309	+0 01	+0 15	− 4.8	−0.5	0.54
18	Kirkcudbright	54 50	4 03	0 16	Greenock	309	−0 48	−0 33	+10.5	+1.1	2.04
19	Wigton	54 51	4 26	0 18	Greenock	309	−0 25	−0 11	+ 2.5	+0.3	1.25
20	Newton Stewart	54 57	4 28	0 18	Greenock	309	+0 05	+0 19	+ 0.5	+0.1	1.05
21	Port William	54 43	4 33	0 18	Greenock	309	−0 45	−0 31	+ 6.0	+0.8	1.59
22	Mull of Galloway	54 38	4 51	0 19	Greenock	309	−0 39	−0 25	+ 3.2	+0.4	1.32
23	Port Patrick	54 50	5 07	0 20	Greenock	309	−0 43	−0 29	+ 3.2	+0.4	1.31
24	Loch Ryan	55 00	5 09	0 21	Greenock	309	−0 40	−0 26	− 0.5	−0.1	0.98
25	Lamlash, Firth of Clyde	55 31	5 05	0 20	Greenock	309	−0 08	+0 06	− 1.3	−0.2	0.88
26	Ayr, Firth of Clyde	55 28	4 38	0 19	Greenock	309	−0 04	+0 10	− 2.2	−0.2	0.79
27	Ardrossan, Firth of Clyde	55 38	4 49	0 19	Greenock	309	−0 09	+0 05	− 2.2	−0.2	0.79
28	GREENOCK, Firth of Clyde	55 57	4 45	0 19	Greenock	309	0 00	0 00	0.0	0.0	1.00
29	Dumbarton, Clyde River	55 56	4 33	0 18	Greenock	309	+0 45	+0 59	+ 1.1	−0.1	0.90
30	Renfrew, Clyde River	55 54	4 25	0 18	Greenock	309	+1 15	+1 29	+ 0.4	0.0	0.97
31	Glasgow, Clyde River	55 52	4 14	0 17	Greenock	309	+1 34	+1 48	0.0	0.0	1.00
32	Inverary, Loch Fyne	56 14	5 05	0 20	Greenock	309	+0 07	+0 21	− 1.4	−0.2	0.87
33	Campbelton	55 26	5 36	0 22	Greenock	309	−0 11	+0 03	− 2.4	−0.2	0.27
34	Mull of Cantyre	55 19	5 48	0 23	Greenock	309	−1 20	−1 06	− 6.6	−0.6	0.35
35	Port Ellen, Islay Island	55 37	6 13	0 25	Greenock	309	+5 37	+5 51	− 5.8	−0.6	0.43
36	Crinan	56 06	5 33	0 22	Greenock	309	+5 19	+5 32	− 4.9	−0.5	0.52
37	Schallasaig, Colonsay Island	56 04	6 10	0 25	Greenock	309	+5 52	+6 05	− 0.4	0.0	0.98
38	Oban, Firth of Lorne	56 25	5 28	0 22	Greenock	309	+5 54	+6 07	+ 1.4	+0.2	1.14
39	Tobermory, Isle of Mull	56 37	6 04	0 24	Greenock	309	+6 06	+6 19	+ 1.4	+0.2	1.15
40	Heynish, Tiree Island	56 29	6 54	0 28	Greenock	309	+6 05	+6 18	− 0.5	+0.1	1.06
41	Loch Moidart	56 48	5 53	0 24	Greenock	309	+6 16	+6 29	+ 2.1	+0.3	1.21
42	Loch Nevis	57 01	5 49	0 23	Greenock	309	+6 20	+6 33	+ 2.8	+0.4	1.29
43	Kyle Rhea, Isle of Skye	57 14	5 40	0 23	Greenock	309	−5 50	−5 37	+ 3.4	+0.4	1.34
44	Kyle Akin, Loch Alsh	57 17	5 44	0 23	Greenock	309	−5 35	−5 22	+ 3.9	+0.5	1.38
45	Portree, Isle of Skye	57 24	6 11	0 25	Greenock	309	−5 18	−5 05	+ 3.2	+0.4	1.32
46	Loch Torridon	57 35	5 49	0 23	Greenock	309	−5 30	−5 17	+ 3.2	+0.4	1.33
47	Poolewe, Loch Ewe	57 47	5 40	0 23	Greenock	309	−5 15	−5 02	+ 2.8	+0.4	1.29
48	Ullapool, Loch Broom	57 56	5 14	0 21	Greenock	309	−5 15	−5 02	+ 2.8	+0.4	1.28
49	Loch Inver	58 09	5 17	0 21	Greenock	309	−5 12	−4 59	+ 2.5	+0.3	1.25
50	Loch Laxford	58 24	5 08	0 21	Greenock	309	−5 07	−4 54	+ 3.2	+0.4	1.32
	Scotland, north coast.										
51	Cape Wrath	58 38	5 00	0 20	Greenock	309	−4 23	−4 10	+ 3.7	+0.5	1.37
52	Loch Eriboll	58 32	4 39	0 19	Greenock	309	−4 14	−4 01	+ 3.2	+0.4	1.32
53	Loch Tongue	58 31	4 24	0 18	Greenock	309	−4 05	−3 52	+ 3.2	+0.4	1.33
54	Thurso	58 37	3 32	0 14	Greenock	309	−3 34	−3 34	+ 2.1	+0.3	1.21
55	Stroma Island, south side	58 40	3 07	0 12	Greenock	309	−2 16	−2 08	− 2.1	−0.1	0.80
	Ireland, east coast.						*Local time.*				
56	Red Bay	55 03	6 03	0 24	Kingstown	313	−0 38	−0 25	− 6.3	−0.8	0.37
57	Maiden Rocks	54 56	5 44	0 23	Kingstown	313	−0 24	−0 11	− 3.6	−0.5	0.64
58	Belfast	54 40	5 49	0 23	Kingstown	313	−0 12	−0 23	− 1.2	−0.3	0.90
59	Donaghadee	54 39	5 32	0 22	Kingstown	313	+0 09	+0 18	+ 0.4	−0.1	1.06
60	Killard Point, Lough Strangford	54 18	5 32	0 22	Kingstown	313	−0 15	−0 02	+ 3.0	+0.1	1.34

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic. (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	10 40	4 28	10 37a	4 31b	19.6	25.4	12.9	21.3	1.0	1.0	.....	1.4	12.7	10.7	18.0
2	11 05	4 53	11 01a	4 57b	13.0	16.9	8.6	14.4	0.8	0.8	.....	1.2	8.4	7.2	18.0
3	11 00	4 48	10 57a	4 51b	21.1	27.4	13.9	22.9	1.0	1.1	.....	1.5	13.7	11.5	18.0
4	11 05	4 53	10 59a	4 59b	6.6	8.5	4.4	7.6	0.6	0.6	.....	0.8	4.2	3.8	18.0
5	11 55	5 43	11 52a	5 46b	21.4	27.8	14.1	23.2	1.0	1.1	.....	1.5	13.9	11.6	18.5
6	11 00	4 48	10 57a	4 51b	19.9	25.9	13.1	21.6	1.0	1.0	.....	1.4	13.0	10.8	18.5
7	10 50	4 38	10 47a	4 41b	19.8	25.7	13.1	21.5	1.0	1.0	.....	1.4	12.8	10.7	18.5
8	11 10	4 58	11 07a	5 01b	19.1	24.8	12.6	20.8	1.0	1.0	.....	1.4	12.4	10.5	19.0
9	11 25	5 13	11 22a	5 16b	19.8	25.7	13.1	21.5	1.0	1.0	.....	1.4	12.8	10.7	19.0
10	0 00	5 48	−0 04b	5 52b	15.3	19.8	10.1	16.9	0.9	0.9	.....	1.3	9.9	8.4	18.5
11	10 55	4 43	10 51a	4 47b	15.2	19.7	10.0	16.8	0.9	0.9	.....	1.2	9.8	8.4	19.0
12	11 00	4 48	10 56a	4 52b	15.8	20.5	10.4	17.4	0.9	0.9	.....	1.3	10.2	8.7	19.0
13	11 00	4 48	10 56a	4 52b	15.8	20.5	10.4	17.4	0.9	0.9	.....	1.3	10.2	8.7	19.0
14	10 58	4 46	10 54a	4 50b	15.2	19.7	10.0	16.8	0.9	0.9	.....	1.2	9.8	8.4	19.5
15	10 56	4 44	10 52a	4 48b	12.4	16.1	8.2	13.8	0.8	0.8	.....	1.1	8.0	6.9	19.0
16	12 15	6 03	12 13a	6 06b	23.1	28.5	17.2	24.5	1.2	0.8	.....	1.4	14.2	12.2	19.0
17	11 50	5 38	11 46a	5 45b	4.9	6.0	3.6	5.5	0.6	0.3	.....	0.7	3.0	2.7	19.0
18	11 00	4 48	10 58a	4 52b	18.6	22.9	13.8	19.9	1.1	0.7	.....	1.3	11.4	9.9	19.0
19	11 20	5 08	11 17a	5 13b	11.4	14.0	8.4	12.4	0.9	0.5	.....	1.0	7.0	6.1	19.0
20	11 50	5 38	11 47a	5 43b	9.6	11.8	7.1	10.5	0.8	0.5	.....	0.9	5.9	5.2	19.5
21	11 00	4 48	11 58a	4 52b	14.5	17.9	10.8	15.6	1.0	0.6	.....	1.1	9.0	7.7	19.5
22	11 05	4 53	11 03a	4 58b	12.0	14.8	8.9	13.0	0.9	0.5	.....	1.0	7.4	6.4	19.5
23	11 00	4 48	10 57a	4 53b	11.9	14.7	8.8	12.9	0.9	0.5	.....	1.0	7.4	6.4	20.0
24	11 02	4 50	10 59a	4 55b	8.9	10.9	6.6	9.8	0.8	0.5	.....	0.9	5.4	4.8	20.0
25	11 35	5 23	11 32a	5 28b	8.0	9.8	5.9	8.8	0.7	0.4	.....	0.8	4.9	4.3	20.0
26	11 40	5 28	11 36a	5 34b	7.1	8.7	5.2	7.9	0.7	0.4	.....	0.8	4.4	3.9	20.0
27	11 35	5 23	11 31a	5 29b	7.2	8.8	5.3	8.0	0.7	0.4	.....	0.8	4.4	3.9	20.0
28	11 44	5 18	11 41a	5 23b	9.1	11.2	6.8	10.0	0.8	0.5	9 31	0.9	5.6	4.9	20.0
29	0 05	6 18	0 02b	6 24b	8.2	10.1	6.1	9.0	0.7	0.5	.....	0.9	5.0	4.5	20.0
30	0 35	6 48	0 32b	6 54b	8.8	10.8	6.5	9.7	0.8	0.5	.....	0.9	5.4	4.8	20.0
31	0 55	7 08	0 52b	7 14b	9.1	11.2	6.7	10.0	0.8	0.5	.....	0.9	5.6	5.0	20.0
32	11 50	5 38	11 47a	5 43b	7.9	9.7	5.8	8.7	0.7	0.4	.....	0.8	4.8	4.3	20.0
33	11 30	5 18	11 26a	5 25b	7.0	8.6	5.2	7.8	0.7	0.4	.....	0.8	4.3	3.8	20.5
34	10 20	4 08	10 15a	4 16b	3.2	4.0	2.4	3.8	0.5	0.3	.....	0.5	2.0	1.8	20.0
35	4 50	11 03	4 44b	11 12a	3.9	4.8	2.9	4.5	0.5	0.3	.....	0.6	2.4	2.2	21.0
36	4 35	10 47	4 30b	10 55a	4.7	5.8	3.5	5.3	0.5	0.3	.....	0.7	2.9	2.6	20.5
37	5 05	11 17	5 01b	11 22a	8.9	10.9	6.6	9.8	0.8	0.5	.....	0.9	5.4	4.8	21.5
38	5 10	11 22	5 08b	11 26a	10.4	12.8	7.7	11.3	0.8	0.5	.....	1.0	6.4	5.6	20.5
39	5 20	11 32	5 18b	11 36a	10.5	12.9	7.8	11.4	0.8	0.5	.....	1.0	6.4	5.6	21.0
40	5 15	11 27	5 12b	11 32a	9.6	11.8	7.1	10.5	0.8	0.5	.....	0.9	5.9	5.2	21.5
41	5 30	11 42	5 27b	11 47a	11.0	13.5	8.1	11.9	0.8	0.5	.....	1.1	6.8	5.9	21.0
42	5 35	11 47	5 33b	11 51a	11.7	14.4	8.7	12.7	0.9	0.5	.....	1.1	7.2	6.2	21.0
43	5 50	12 02	5 48b	12 06a	12.2	15.0	9.0	13.2	0.9	0.6	.....	1.1	7.5	6.5	21.0
44	6 05	12 17	6 03b	12 21a	12.6	15.5	9.3	13.6	0.9	0.6	.....	1.2	7.8	6.7	21.0
45	6 20	0 07	6 18b	0 11b	12.0	14.8	8.9	13.0	0.9	0.6	.....	1.1	7.4	6.4	21.5
46	6 10	12 22	6 08b	0 02b	12.1	14.9	9.0	13.1	0.9	0.6	.....	1.1	7.4	6.4	21.0
47	6 25	0 12	6 23b	0 16b	11.7	14.4	8.7	12.7	0.8	0.5	.....	1.1	7.2	6.2	21.0
48	6 27	0 14	6 25b	0 18b	11.6	14.3	8.6	12.6	0.8	0.5	.....	1.1	7.2	6.2	21.0
49	6 30	0 17	6 28b	0 21b	11.4	14.0	8.4	12.3	0.8	0.5	.....	1.0	7.0	6.1	21.0
50	6 35	0 22	6 33b	0 26b	12.0	14.8	8.9	13.0	0.9	0.6	.....	1.1	7.4	6.4	21.0
51	7 20	1 07	7 18a	1 11b	12.5	15.4	9.3	13.5	0.9	0.6	.....	1.1	7.7	6.6	21.0
52	7 30	1 17	7 28a	1 22b	12.0	14.7	8.8	12.8	0.8	0.5	.....	1.1	7.4	6.4	20.5
53	7 40	1 27	7 38a	1 32b	12.1	14.9	9.0	13.1	0.9	0.6	.....	1.1	7.4	6.4	20.5
54	8 15	1 49	8 13a	1 58b	11.0	13.5	8.1	11.9	0.8	0.5	.....	1.0	6.8	5.9	20.5
55	9 35	3 22	9 31a	3 28b	7.3	9.0	5.4	8.0	0.6	0.4	.....	0.8	4.5	3.9	20.5
56	10 15	4 08	10 10a	4 11b	3.2	3.8	2.6	3.8	0.5	0.3	.....	0.5	1.9	1.8	20.5
57	10 30	4 18	10 26a	4 25b	5.6	6.7	4.5	6.2	0.6	0.3	.....	0.7	3.4	3.0	20.5
58	10 42	4 06	10 38a	4 11b	7.9	9.3	6.3	8.7	0.7	0.4	.....	0.8	4.7	4.3	20.0
59	11 00	4 48	10 56a	4 54b	9.3	11.1	7.4	10.2	0.8	0.5	.....	0.9	5.6	5.0	20.0
60	10 40	4 28	10 36a	4 32b	11.7	13.9	9.4	12.7	0.9	0.5	.....	1.0	7.0	6.3	20.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	THE BRITISH ISLANDS—continued.										
	Ireland, east coast—Continued.	*North.* ° ′	*West.* ° ′	h. m.			*Local time.* h. m.	h. m.	*Mean Low Water Springs.* feet.	feet.	
1	Strangford	54 21	5 34	0 22	Kingstown	313	+1 45	+1 33	−0.3	−0.2	0.99
2	Newcastle, Dundrum Bay	54 11	5 54	0 24	Kingstown	313	−0 02	+0 11	+3.3	+0.4	1.34
3	Cranfield Pt., Carlingford Lough	54 01	6 04	0 24	Kingstown	313	−0 07	+0 06	+4.4	+0.5	1.44
4	Newry, Carlingford Lough	54 09	6 22	0 25	Kingstown	313	+0 38	+0 51	+2.0	+0.3	1.20
5	Dundalk	53 59	6 18	0 25	Kingstown	313	−0 12	+0 01	+3.5	+0.4	1.36
6	Drogheda, Boyne River	53 43	6 15	0 25	Kingstown	313	−0 07	+0 06	+0.6	+0.1	1.06
7	Balbriggan	53 37	6 11	0 25	Kingstown	313	−0 27	−0 14	+1.7	+0.2	1.16
8	Howth	53 24	6 04	0 24	Kingstown	313	+0 03	+0 16	+1.7	+0.2	1.16
9	Dublin, Poolbeg Light	53 20	6 09	0 25	Kingstown	313	+0 08	+0 21	+1.9	+0.2	1.19
10	KINGSTOWN, Dublin Bay	53 18	6 08	0 25	Kingstown	313	0 00	0 00	0.0	0.0	1.00
11	Bray Head	53 11	6 07	0 24	Kingstown	313	−0 22	−0 09	+0.8	+0.1	1.07
12	Wicklow	52 58	6 00	0 24	Kingstown	313	−0 42	−0 29	−1.9	−0.2	0.80
13	Arklow	52 47	6 11	0 25	Kingstown	313	−3 07	−2 54	−6.4	−0.7	0.34
14	Wexford	52 19	6 28	0 26	Kingstown	313	−3 47	−3 34	−5.5	−0.6	0.45
15	Tuskar	52 12	6 13	0 25	Kingstown	313	−5 22	−5 09	−1.9	−0.2	0.80
	Ireland, south coast.										
16	Carnsore	52 09	6 22	0 25	Queenstown	317	+1 12	+0 59	−2.4	−0.4	0.77
17	Coninbeg Rock, Saltee Islands	52 02	6 40	0 27	Queenstown	317	+0 52	+0 39	+1.1	+0.1	1.11
18	Waterford, Duncannon Fort	52 13	6 56	0 28	Queenstown	317	+0 32	+0 19	+0.7	+0.1	1.07
19	Dungarvan Light, Ballinacourty	52 04	7 33	0 30	Queenstown	317	+0 27	+0 14	+0.7	0.0	1.08
20	Youghal	51 57	7 51	0 31	Queenstown	317	+0 29	+0 16	+0.9	+0.1	1.09
21	Ballycottin	51 50	7 59	0 32	Queenstown	317	+0 07	−0 06	+0.2	0.0	1.02
22	QUEENSTOWN	51 51	8 16	0 33	Queenstown	317	0 00	0 00	0.0	0.0	1.00
23	Kinsale	51 42	8 30	0 34	Queenstown	317	−0 08	−0 16	−0.2	−0.1	0.99
24	Courtmacsherry	51 36	8 40	0 35	Queenstown	317	−0 13	−0 26	−0.8	−0.1	0.92
25	Clonakilty Bay	51 35	8 52	0 35	Queenstown	317	−0 18	−0 31	−0.7	−0.2	0.94
26	Castletownsend	51 30	9 10	0 37	Queenstown	317	−0 23	−0 36	−0.9	−0.2	0.92
27	Baltimore	51 28	9 24	0 38	Queenstown	317	−0 21	−0 34	−1.4	−0.3	0.88
28	Cape Clear	51 24	9 32	0 38	Queenstown	317	−0 43	−0 56	−2.5	−0.4	0.76
29	Crookhaven	51 29	9 43	0 39	Queenstown	317	−0 36	−0 49	−1.1	−0.3	0.84
	Ireland, west coast.										
30	Dunmanus Harbor	51 30	9 44	0 39	Queenstown	317	−0 53	−1 06	−2.0	−0.2	0.79
31	Castletown, Bearhaven	51 37	9 53	0 40	Queenstown	317	−0 33	−0 46	−1.9	−0.1	0.80
32	Valentia Harbor	51 56	10 19	0 41	Queenstown	317	−1 03	−1 16	−0.8	0.0	0.90
33	Castlemaine	52 08	9 43	0 39	Queenstown	317	−0 18	−0 31	+2.2	+0.6	1.19
34	Dingle	52 07	10 16	0 41	Queenstown	317	−0 53	−1 06	−0.9	+0.1	0.89
35	Smerwick Harbor	52 11	10 24	0 42	Queenstown	317	−0 53	−1 06	−0.3	+0.2	0.94
36	Tralee	52 16	9 53	0 40	Queenstown	317	−0 43	−0 56	+0.5	+0.3	1.02
37	Carrigaholt, Shannon River	52 35	9 41	0 39	Queenstown	317	−0 08	−0 16	+1.8	+0.4	1.15
38	Tarbert, Shannon River	52 36	9 22	0 37	Queenstown	317	+0 09	−0 04	+2.2	+0.6	1.19
39	Limerick, Shannon River	52 39	8 38	0 35	Queenstown	317	+1 27	+1 39	+4.1	+1.2	1.55
40	Liscanor Bay	52 55	9 21	0 37	Queenstown	317	−0 36	−0 36	+1.6	+0.4	1.13
41	Killeany, Arran Islands	53 07	9 38	0 39	Queenstown	317	−0 18	−0 31	+1.4	+0.4	1.11
42	Galway	53 14	9 04	0 36	Queenstown	317	−0 14	−0 40	+2.8	+0.6	1.25
43	Kilkieran Cove	53 17	9 41	0 39	Queenstown	317	−0 13	−0 26	+3.0	+0.7	1.26
44	Slyne Head	53 24	10 14	0 41	Queenstown	317	−0 17	−0 30	+1.3	+0.4	1.10
45	Inishbofin	53 37	10 15	0 41	Queenstown	317	−0 13	−0 26	+0.3	+0.2	1.01
46	Clare Island, Clew Bay	53 50	10 00	0 40	Queenstown	317	−0 08	−0 21	+0.3	+0.2	1.01
47	Westport, Clew Bay	53 47	9 32	0 38	Queenstown	317	+0 07	−0 06	+0.9	+0.4	1.06
48	Broadhaven Harbor	54 13	9 53	0 40	Kingstown	313	+6 24	+6 37	−0.8	+0.4	0.88
49	Killala Bay	54 14	9 12	0 37	Kingstown	313	+6 43	+6 56	−0.9	+0.3	0.86
50	Sligo Harbor, Oyster Island	54 18	8 34	0 34	Kingstown	313	+6 43	+6 56	+0.1	+0.5	0.96
51	Mullaghmore, Sligo Bay	54 27	8 26	0 34	Kingstown	313	+6 38	+6 51	0.0	+0.4	0.94
52	Donegal	54 37	8 07	0 32	Kingstown	313	+6 38	+6 51	+0.1	+0.5	0.96
53	Killybegs	54 35	8 27	0 34	Kingstown	313	+6 36	+6 49	0.0	+0.4	0.94
54	Lough Rossmore	54 47	8 31	0 34	Kingstown	313	+6 40	+6 53	−0.4	+0.4	0.92
	Ireland, north coast.										
55	Ballyness Bar	55 08	8 08	0 33	Kingstown	313	+6 43	+6 56	+0.2	+0.4	0.98
56	Sheephaven	55 11	7 53	0 32	Kingstown	313	+6 53	+7 06	+0.4	+0.4	1.00
57	Mulroy Bay Bar	55 15	7 45	0 31	Kingstown	313	+7 01	+7 14	+0.4	+0.4	0.99
58	Rathmullan, Lough Swilly	55 08	7 30	0 30	Kingstown	313	+7 03	+7 16	+1.0	+0.6	1.06
59	Culdaff Bay	55 18	7 10	0 29	Kingstown	313	+7 13	+7 26	−2.2	+0.2	0.74
60	Moville, Lough Foyle	55 10	7 02	0 28	Kingstown	313	+8 28	+8 41	−3.2	0.0	0.64
61	Londonderry, Lough Foyle	54 59	7 21	0 29	Kingstown	313	+9 21	+9 33	−2.8	0.0	0.68
62	Coleraine	55 09	6 45	0 27	Kingstown	313	+7 45	+7 58	−4.4	−0.2	0.53
63	Port Rush	55 13	6 32	0 26	Kingstown	313	+7 28	+8 06	−5.3	−0.3	0.43
64	Ballycastle Bay	55 12	6 15	0 25	Kingstown	313	+7 43	+8 21	−7.4	−0.6	0.24

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	0 15	6 03	0 12b	6 08b	8.7	10.4	7.0	9.6	0.8	0.4	.....	0.9	5.2	4.8	20.0
2	10 50	4 38	10 47a	4 41b	11.7	14.6	8.5	11.3	0.7	0.8	.....	1.1	7.3	5.6	20.0
3	10 45	4 33	10 42a	4 36b	12.6	15.8	9.2	12.2	0.8	0.8	.....	1.1	7.9	6.1	20.0
4	11 30	5 18	11 27a	5 21b	10.5	13.1	7.7	10.1	0.7	0.8	.....	1.0	6.6	5.0	20.5
5	10 40	4 28	10 37a	4 31b	11.9	14.9	8.7	11.5	0.8	0.8	.....	1.1	7.4	5.7	20.0
6	10 45	4 33	10 42a	4 36b	9.8	11.6	6.8	8.9	0.7	0.7	.....	1.0	5.8	4.4	20.0
7	10 25	4 13	10 22a	4 16b	10.2	12.8	7.5	9.8	0.7	0.7	.....	1.0	6.4	4.9	20.0
8	10 55	4 43	10 52a	4 46b	10.2	12.7	7.5	9.8	0.7	0.7	.....	1.0	6.4	4.9	20.0
9	11 00	4 48	10 57a	4 51b	10.4	13.0	7.6	10.0	0.7	0.7	.....	1.0	6.5	5.0	20.0
10	10 52	4 27	10 49a	4 30b	8.8	10.9	6.4	8.4	0.7	0.7	.....	1.0	5.4	4.2	20.0
11	10 30	4 18	10 27a	4 21b	9.4	11.8	6.9	9.0	0.7	0.7	.....	1.0	5.9	4.5	20.0
12	10 10	3 58	10 06a	4 02b	7.0	8.7	5.1	6.7	0.6	0.6	.....	0.9	4.4	3.3	20.0
13	7 45	1 33	7 39a	1 39b	3.0	3.8	2.2	2.8	0.4	0.4	.....	0.6	1.9	1.4	20.0
14	7 05	0 53	7 01a	0 57b	3.9	4.9	2.9	3.7	0.4	0.5	.....	0.6	2.4	1.8	20.0
15	5 30	11 43	5 26a	11 47a	7.0	8.8	5.1	6.7	0.6	0.6	.....	0.9	4.4	3.3	19.5
16	5 45	11 58	5 42a	12 00a	6.9	8.9	4.5	7.1	0.6	0.4	.....	0.7	4.4	3.5	19.5
17	5 25	11 38	5 23a	11 40a	9.9	12.8	6.4	10.2	0.7	0.5	.....	0.8	6.4	5.1	20.0
18	5 05	11 18	5 03a	11 20a	9.5	12.3	6.2	9.8	0.7	0.5	.....	0.8	6.2	4.9	20.0
19	5 00	11 13	4 58a	11 15a	9.6	12.4	6.2	9.9	0.7	0.5	.....	0.8	6.2	5.0	20.5
20	5 02	11 15	5 00a	11 17a	9.7	12.6	6.3	10.0	0.7	0.5	.....	0.8	6.3	5.0	20.5
21	4 40	10 53	4 38a	10 55a	9.1	11.8	5.9	9.4	0.7	0.5	.....	0.8	5.9	4.7	20.5
22	4 33	10 59	4 31a	11 01a	8.9	11.6	5.8	9.2	0.7	0.5	.....	0.8	5.8	4.6	21.0
23	4 30	10 43	4 28a	10 45a	8.8	11.4	5.7	9.1	0.7	0.5	.....	0.8	5.7	4.5	21.0
24	4 20	10 33	4 18a	10 35a	8.2	10.7	5.3	8.5	0.6	0.4	.....	0.7	5.4	4.2	21.0
25	4 15	10 28	4 13a	10 30a	8.4	10.9	5.5	8.7	0.6	0.4	.....	0.7	5.4	4.3	21.0
26	4 10	10 23	4 08a	10 25a	8.2	10.6	5.3	8.5	0.6	0.4	.....	0.7	5.3	4.2	21.0
27	4 12	10 25	4 10a	10 27a	7.8	10.1	5.1	8.1	0.6	0.4	.....	0.7	5.0	4.0	21.5
28	3 50	10 03	3 48a	10 05a	6.8	8.8	4.4	7.1	0.6	0.4	.....	0.7	4.4	3.6	21.5
29	3 57	10 10	3 55a	10 12a	7.5	9.7	4.9	7.8	0.6	0.4	.....	0.7	4.8	3.9	21.5
30	3 40	9 53	3 39a	9 55a	7.0	9.4	4.1	7.4	0.4	0.7	.....	0.8	4.7	3.8	21.5
31	4 00	10 13	3 59a	10 15a	7.1	9.6	4.1	7.5	0.4	0.7	.....	0.8	4.8	3.9	21.5
32	3 30	9 43	3 29a	9 45a	8.0	10.8	4.6	8.4	0.4	0.8	.....	0.8	5.4	4.3	22.0
33	4 15	10 28	4 14a	10 29a	10.6	14.3	6.2	11.1	0.5	0.9	.....	1.0	7.2	5.6	21.5
34	3 40	9 53	3 39a	9 55a	7.9	10.7	4.6	8.3	0.4	0.8	.....	0.8	5.4	4.3	22.0
35	3 40	9 53	3 39a	9 55a	8.4	11.4	4.9	8.8	0.4	0.8	.....	0.9	5.7	4.5	22.0
36	3 50	10 03	3 49a	10 05a	9.1	12.3	5.3	9.5	0.5	0.8	.....	0.9	6.2	4.9	22.0
37	4 30	10 43	4 29a	10 45a	10.2	13.8	5.9	10.7	0.5	0.9	.....	1.0	6.9	5.4	22.0
38	4 42	10 55	4 41a	10 56a	10.6	14.3	6.2	11.1	0.5	0.9	.....	1.0	7.2	5.6	22.0
39	6 00	0 13	5 59a	0 14b	13.8	18.7	8.0	14.3	0.6	1.0	.....	1.1	9.4	7.3	21.5
40	4 10	10 23	4 09a	10 25a	10.1	13.7	5.9	10.6	0.5	0.9	.....	1.0	6.8	5.4	22.0
41	4 15	10 28	4 14a	10 30a	9.9	13.4	5.7	10.4	0.5	0.9	.....	1.0	6.7	5.2	22.0
42	4 19	10 19	4 18a	10 20a	11.1	15.1	6.4	11.6	0.5	0.9	.....	1.0	7.5	5.9	22.0
43	4 20	10 33	4 19a	10 34a	11.2	15.1	6.5	11.7	0.5	0.9	.....	1.0	7.6	5.8	22.0
44	4 16	10 29	4 15a	10 30a	9.8	13.2	5.7	10.3	0.5	0.8	.....	0.9	6.6	5.1	22.0
45	4 20	10 33	4 19a	10 35a	9.0	12.1	5.2	9.4	0.5	0.8	.....	0.9	6.0	4.7	22.5
46	4 25	10 38	4 24a	10 40a	9.0	12.2	5.2	9.4	0.5	0.8	.....	0.9	6.1	4.7	22.5
47	4 40	10 53	4 39a	10 55a	9.4	12.7	5.5	9.8	0.5	0.8	.....	0.9	6.4	4.9	22.0
48	4 50	11 03	4 49a	11 05a	7.7	10.4	4.5	8.1	0.4	0.8	.....	0.8	5.2	4.0	23.0
49	5 10	11 23	5 09a	11 25a	7.6	10.2	4.4	7.9	0.4	0.8	.....	0.8	5.1	4.0	22.5
50	5 10	11 23	5 09a	11 25a	8.4	11.4	4.9	8.8	0.4	0.8	.....	0.9	5.7	4.4	22.0
51	5 05	11 18	5 04a	11 20a	8.3	11.2	4.8	8.7	0.4	0.8	.....	0.9	5.6	4.4	22.0
52	5 05	11 18	5 04a	11 20a	8.4	11.4	4.9	8.8	0.4	0.8	.....	0.9	5.7	4.4	21.5
53	5 03	11 16	5 02a	11 18a	8.3	11.2	4.8	8.7	0.4	0.8	.....	0.9	5.6	4.4	22.0
54	5 07	11 20	5 06a	11 22a	8.1	10.9	4.7	8.5	0.4	0.8	.....	0.8	5.4	4.2	22.5
55	5 10	11 23	5 09a	11 25a	8.6	11.4	5.3	9.0	0.4	0.8	.....	0.9	5.7	4.5	22.0
56	5 20	11 33	5 19a	11 35a	8.8	11.7	5.4	9.2	0.4	0.8	.....	0.9	5.8	4.6	21.5
57	5 28	11 41	5 27a	11 43a	8.7	11.6	5.3	9.1	0.4	0.8	.....	0.9	5.8	4.5	21.5
58	5 30	11 43	5 29a	11 45a	9.3	12.4	5.7	9.7	0.5	0.9	.....	1.0	6.2	4.8	21.5
59	5 40	11 53	5 39a	11 55a	6.5	8.7	4.0	6.9	0.3	0.7	.....	0.8	4.4	3.5	21.0
60	6 55	0 43	6 54a	0 45b	5.6	7.5	3.4	6.0	0.3	0.7	.....	0.8	3.8	3.0	21.0
61	7 48	1 35	7 47a	1 37b	6.0	8.0	3.6	6.4	0.3	0.7	.....	0.8	4.0	3.2	21.5
62	6 12	0 00	6 11a	0 02b	4.7	6.2	2.9	5.1	0.3	0.7	.....	0.8	3.1	2.6	21.0
63	5 55	0 08	5 54a	0 10b	3.8	5.1	2.3	4.2	0.3	0.7	.....	0.8	2.6	2.1	21.0
64	6 10	0 23	6 09a	0 25b	2.1	2.8	1.3	2.5	0.2	0.6	.....	0.7	1.4	1.3	21.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	THE BRITISH ISLANDS—continued.										
	Hebrides, or Western Isles.	*North.*	*West.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	St. Kilda Island	57 48	8 35	0 34	Kingstown	313	+ 6 53	+ 7 05	+ 0.8	+0.6	1.02
2	Barra Head, Bernera Island	56 47	7 39	0 31	Kingstown	313	+ 7 08	+ 7 20	− 0.1	+0.5	0.93
3	Loch Skiport, S. Uist	57 20	7 08	0 29	Kingstown	313	+ 7 15	+ 7 27	+ 1.0	+0.6	1.03
4	Loch Boisdale, S. Uist	57 09	7 10	0 29	Kingstown	313	+ 7 08	+ 7 20	+ 1.3	+0.7	1.07
5	Loch Maddy, N. Uist	57 36	7 06	0 28	Kingstown	313	+ 7 28	+ 7 40	+ 1.2	+0.6	1.06
6	Monach Island Light	57 32	7 42	0 31	Kingstown	313	+ 7 07	+ 7 19	+ 0.8	+0.6	1.02
7	East Loch Tarbert, Harris Id	57 51	6 45	0 27	Kingstown	313	+ 7 29	+ 7 41	+ 2.0	+0.8	1.14
8	West Loch Tarbert, Harris Id	57 55	6 55	0 28	Kingstown	313	+ 7 23	+ 7 35	+ 0.4	+0.4	0.99
9	Stornoway, Lewis Island	58 11	6 22	0 25	Kingstown	313	+ 8 08	+ 8 20	+ 1.8	+0.8	1.12
10	Bernera, Loch Roag, Lewis Id	58 14	6 50	0 27	Kingstown	313	+ 7 33	+ 7 45	− 0.2	+0.4	0.92
	Orkney Islands.										
11	Stromness, Mainland, or Pomona I.	58 58	3 31	0 14	Kingstown	313	− 2 02	− 1 50	− 1.2	+0.4	0.83
12	Kirkwall, Mainland, or Pomona I.	58 59	2 58	0 12	Kingstown	313	− 0 55	− 0 43	− 1.2	+0.2	0.83
13	Otterswick, Sanday Island	59 16	2 33	0 10	Kingstown	313	− 1 50	− 1 38	− 0.2	+0.4	0.92
	Shetland Islands.										
14	Scaddon, Fair Isle	59 31	1 39	0 07	Kingstown	313	− 0 03	+ 0 09	− 5.4	−0.4	0.42
15	Sumburgh Head, Mainland Id	59 51	1 16	0 05	Kingstown	313	− 1 18	− 1 05	− 5.4	−0.3	0.43
16	Lerwick, Mainland Island	60 09	1 10	0 05	Kingstown	313	− 0 33	− 0 11	− 4.6	−0.2	0.50
17	Balta, Unst Island	60 45	0 50	0 03	Kingstown	313	− 1 23	− 1 11	− 4.2	−0.2	0.53
	FAROE ISLANDS.										
18	Fuglöe Fiord	62 19	6 16	0 25	Wilhelmshaven	321	− 1 48	− 1 47	− 6.8	−0.6	0.43
19	Leervigo Fiord	62 15	6 43	0 27	Wilhelmshaven	321	− 0 09	− 0 07	− 6.9	−0.5	0.42
20	Myggenaes Fiord	62 08	7 28	0 30	Wilhelmshaven	321	− 4 03	− 4 02	− 4.4	−0.2	0.61
21	Suderöe Fiord	61 42	7 00	0 28	Wilhelmshaven	321	+ 5 20	+ 5 23	− 9.0	−0.8	0.26
	BELGIUM.		*East.*								
22	Nieuport	51 09	2 43	0 11	Dover	297	+ 1 31	+ 0 44	− 3.6	−0.6	0.81
23	Ostende	51 14	2 56	0 12	Dover	297	+ 1 23	+ 0 54	− 3.2	−0.6	0.82
24	Blankenberghe	51 19	3 07	0 12	Dover	297	+ 1 26	+ 0 39	− 6.4	−1.0	0.64
25	Antwerp, Scheldt River	51 14	4 24	0 18	Dover	297	+ 5 36	+ 4 49	− 4.4	−0.6	0.76
26	Liefkenshoek, Scheldt River	51 18	4 17	0 17	Dover	297	+ 4 36	+ 3 49	− 3.0	−0.4	0.84
	NETHERLANDS, OR HOLLAND.										
27	Bath, Scheldt River	51 24	4 12	0 17	Sheerness	289	+ 2 26	+ 2 32	− 2.8	−0.2	0.80
28	Terneuse or Neuzen, Scheldt R	51 21	3 50	0 15	Sheerness	289	+ 0 40	+ 0 56	− 2.2	0.0	0.84
29	Flushing or Vlissingen, Scheldt R.	51 26	3 34	0 14	Sheerness	289	+ 0 01	+ 0 17	− 2.0	0.0	0.85
30	Westkapelle	51 32	3 27	0 14	Sheerness	289	+ 0 13	+ 0 03	− 2.3	0.0	0.83
31	Zierikzee	51 38	3 54	0 16	Sheerness	289	+ 1 03	+ 1 19	− 6.2	−0.6	0.59
32	Bruinisse	51 40	4 06	0 16	Sheerness	289	+ 0 33	+ 1 49	− 5.7	−0.5	0.61
33	Brouwershaven	51 43	3 55	0 16	Sheerness	289	+ 0 03	+ 1 19	− 6.6	−0.6	0.56
34	Hellevoetsluis, Meuse River	51 49	4 08	0 17	Sheerness	289	+ 0 31	+ 1 47	−10.5	−1.1	0.31
35	Willemstad, Meuse River	51 42	4 26	0 18	Sheerness	289	+ 2 28	+ 2 44	− 6.4	−0.6	0.56
36	Moerdijk, Meuse River	51 42	4 37	0 18	Sheerness	289	+ 2 58	+ 3 14	− 7.5	−0.7	0.50
37	Brielle	51 54	4 11	0 17	Sheerness	289	+ 2 01	+ 2 17	−10.9	−1.1	0.27
38	Rotterdam	51 56	4 29	0 18	Sheerness	289	+ 2 43	+ 2 59	− 9.2	−0.8	0.39
39	Katwyk	52 12	4 24	0 18	Sheerness	289	+ 1 28	+ 1 44	−10.9	−1.1	0.27
40	Ymuiden	52 28	4 33	0 18	Sheerness	289	+ 1 58	+ 2 14	−10.5	−1.1	0.31
41	Haaks, The Texel Entr. Zuider Zee	52 58	4 40	0 19	Sheerness	289	+ 3 56	+ 5 12	−11.4	−1.2	0.24
42	Nieuwediep, Texel E. Zuider Zee	52 58	4 47	0 19	Sheerness	289	− 6 02	− 5 45	−11.6	−1.2	0.22
43	Harlingen, Zuider Zee	53 10	5 24	0 22	Sheerness	289	− 4 35	− 4 18	−10.7	−1.1	0.29
44	West Terschelling Light	53 21	5 13	0 21	Wilhelmshaven	321	+ 8 00	+ 8 02	− 7.4	−0.8	0.41
45	Ameland Island Light	53 27	5 37	0 22	Wilhelmshaven	321	+ 8 50	+ 8 52	− 7.0	−0.8	0.43
46	Schiermonnikoog Island Light	53 29	6 09	0 25	Wilhelmshaven	321	+ 9 00	+ 9 02	− 7.4	−0.8	0.40
47	Delfzyl, Ems River	53 20	6 56	0 28	Wilhelmshaven	321	+10 35	+10 37	− 3.7	−0.3	0.70
	GERMANY.										
	North Sea.						*Time meridian, 15° E.*				
48	Emden, Ems River	53 21	7 11	0 29	Wilhelmshaven	321	+ 0 25	+ 0 26	− 4.6	−0.4	0.63
49	Borkum Island, Ems River Entr	53 35	6 40	0 27	Wilhelmshaven	321	− 2 02	− 2 00	− 6.4	−0.6	0.49
50	Norderney Light	53 43	7 13	0 29	Wilhelmshaven	321	− 1 19	− 1 17	− 6.0	−0.6	0.52
51	Wangeroog Island, Jade R. Entr	53 47	7 54	0 32	Wilhelmshaven	321	− 1 00	− 0 58	− 5.3	−0.5	0.57

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring. (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	ect.	West. °
1	5 20	11 32	5 19a	11 34a	9.0	12.2	5.2	9.4	0.5	0.9	.....	1.0	6.1	4.7	23.0
2	5 35	11 47	5 34a	11 49a	8.2	11.1	4.8	8.6	0.4	0.8	.....	0.9	5.6	4.3	22.0
3	5 42	11 54	5 41a	11 56a	9.1	12.3	5.3	9.5	0.5	0.9	.....	1.0	6.2	4.8	22.0
4	5 35	11 47	5 34a	11 49a	9.4	12.7	5.5	9.8	0.5	0.9	.....	1.0	6.4	4.9	22.0
5	5 55	12 07	5 54a	12 09a	9.3	12.5	5.4	9.7	0.5	0.9	.....	1.0	6.3	4.8	22.0
6	5 34	11 46	5 33a	11 48a	9.0	12.2	5.2	9.4	0.5	0.9	.....	1.0	6.1	4.7	22.5
7	5 56	12 08	5 55a	12 10a	10.0	13.5	5.8	10.4	0.5	0.9	.....	1.0	6.8	5.2	22.0
8	5 50	12 02	5 49a	12 04a	8.7	11.7	5.0	9.1	0.4	0.8	.....	0.9	5.8	4.5	22.0
9	6 35	0 22	6 34a	0 22b	9.9	13.4	5.7	10.3	0.5	0.9	.....	1.0	6.7	5.1	22.0
10	6 00	12 12	5 59a	12 14a	8.1	11.0	4.7	8.5	0.4	0.8	.....	0.9	5.5	4.2	22.0
11	8 50	2 37	8 49a	2 39b	7.3	9.9	4.2	7.7	0.3	0.7	.....	0.8	5.0	3.8	20.0
12	9 57	3 44	9 56a	3 46b	7.3	9.8	4.2	7.7	0.3	0.7	.....	0.8	4.9	3.8	20.0
13	9 03	2 50	9 02a	2 52b	8.1	11.0	4.7	8.5	0.4	0.8	.....	0.9	5.5	4.3	19.5
14	10 50	4 37	10 49a	4 39b	3.7	5.0	2.2	4.1	0.2	0.6	.....	0.7	2.5	2.1	19.0
15	9 35	3 22	9 34a	3 24b	3.8	5.2	2.2	4.2	0.2	0.6	.....	0.7	2.6	2.1	19.0
16	10 20	4 17	10 19a	4 19b	4.4	6.0	2.6	4.8	0.3	0.7	.....	0.8	3.0	2.4	19.0
17	9 30	3 17	9 29a	3 19b	4.7	6.4	2.7	5.1	0.3	0.7	.....	0.8	3.2	2.6	19.0
18	11 05	4 52	11 04a	4 54b	4.8	6.5	2.8	5.2	0.3	0.7	.....	0.8	3.2	2.7	23.5
19	0 20	6 32	0 19b	6 34b	4.7	6.4	2.7	5.1	0.3	0.7	.....	0.8	3.2	2.6	23.5
20	8 50	2 37	8 49a	2 39b	6.8	9.3	3.9	7.2	0.3	0.7	.....	0.8	4.6	3.5	24.0
21	5 50	12 02	5 48a	12 04a	2.9	4.0	1.7	3.3	0.2	0.6	.....	0.7	2.0	3.7	23.5
22	0 10	6 22	0 15b	6 21a	12.3	15.7	8.4	13.5	0.3	0.9	.....	1.0	7.8	6.9	14.0
23	0 02	6 32	0 07b	6 31a	12.5	16.1	8.4	13.7	0.3	0.9	18 14	1.0	8.0	7.0	14.0
24	0 05	6 17	0 11b	6 15a	9.8	12.5	6.7	10.9	0.3	0.8	.....	1.0	6.2	5.6	14.0
25	4 15	10 27	4 21b	10 26a	11.5	14.8	7.8	12.6	0.3	0.8	.....	1.0	7.4	6.4	13.5
26	3 15	9 27	3 20b	9 26a	12.7	16.3	8.6	13.9	0.3	0.9	.....	1.0	8.2	7.1	13.5
27	3 05	9 17	3 11b	9 16a	10.8	13.8	7.3	11.9	0.3	0.8	.....	1.0	6.9	6.1	13.5
28	1 25	7 37	1 31b	7 36a	11.4	14.6	7.8	12.5	0.3	0.8	.....	1.0	7.3	6.3	14.0
29	0 44	6 56	0 50b	6 55a	11.5	14.7	7.8	12.6	0.3	0.8	.....	1.0	7.4	6.4	14.0
30	0 30	6 42	0 36b	6 41a	11.2	14.3	7.6	12.3	0.3	0.8	.....	1.0	7.2	6.3	14.0
31	1 50	8 02	1 56b	8 00a	7.9	10.1	5.4	8.8	0.2	0.7	.....	0.8	5.0	4.6	14.0
32	2 20	8 32	2 26b	8 30a	8.3	10.6	5.6	9.2	0.2	0.7	.....	0.8	5.3	4.8	13.5
33	1 50	8 02	1 56b	8 00a	7.6	9.7	5.2	8.5	0.2	0.7	.....	0.8	4.8	4.4	13.5
34	2 20	8 32	2 29b	8 30a	4.1	5.2	2.8	4.8	0.2	0.5	.....	0.6	2.6	2.5	13.5
35	3 20	9 32	3 26b	9 30a	7.6	9.8	5.2	8.5	0.2	0.7	.....	0.8	4.9	4.4	13.5
36	3 50	10 02	3 57b	10 00a	6.7	8.6	4.6	7.6	0.2	0.7	.....	0.8	4.3	3.9	13.5
37	2 50	9 02	3 00b	8 59a	3.7	4.8	2.5	4.4	0.2	0.5	.....	0.6	2.4	2.3	13.5
38	3 35	9 47	3 44b	9 44a	5.2	6.7	3.5	6.0	0.2	0.6	.....	0.7	3.4	3.1	13.5
39	2 20	8 32	2 30b	8 29a	3.7	4.8	2.5	4.4	0.2	0.5	.....	0.6	2.4	2.3	13.5
40	2 50	9 02	2 59b	9 00a	4.1	5.3	2.8	4.8	0.2	0.5	.....	0.6	2.6	2.5	13.5
41	5 50	12 02	5 59b	12 00a	3.3	4.2	2.2	3.9	0.1	0.5	.....	0.5	2.1	2.1	13.5
42	7 17	1 05	7 27b	1 02b	3.0	3.9	2.0	2.9	0.1	0.5	.....	0.5	2.0	1.9	13.5
43	8 50	2 38	9 00b	2 35b	3.9	5.0	2.7	3.7	0.2	0.5	.....	0.6	2.5	2.4	13.5
44	8 30	2 18	8 24b	2 28b	4.5	5.7	3.2	4.8	0.7	0.4	.....	0.8	2.8	2.4	13.5
45	9 20	3 08	9 14b	3 17b	4.8	6.1	3.4	5.1	0.7	0.4	.....	0.8	3.0	2.5	13.5
46	9 30	3 18	9 24b	3 28b	4.4	5.6	3.1	4.7	0.7	0.4	.....	0.8	2.8	2.3	13.0
47	11 05	4 58	11 00b	5 01b	7.7	9.8	5.5	8.0	0.9	0.6	.....	1.1	4.9	3.9	12.5
48	0 24	6 36	0 19a	6 44b	7.0	8.9	5.0	7.3	0.9	0.5	.....	1.0	4.4	3.6	12.5
49	10 20	4 08	10 14b	4 17b	5.4	6.8	3.8	5.7	0.7	0.5	.....	0.9	3.4	2.8	13.0
50	11 05	4 53	10 59b	5 02b	5.8	7.3	4.1	6.1	0.8	0.5	.....	0.9	3.6	3.0	12.5
51	11 27	5 15	11 21b	5 24b	6.3	8.0	4.5	6.6	0.8	0.5	.....	1.0	4.0	3.2	12.0

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	GERMANY—continued.										
	North Sea—Continued.	*North.*	*East.*				*Time meridian, 15° E.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Hooksiel, Jade River	53 38	8 02	0 32	Wilhelmshaven	321	−0 37	−0 35	−2.8	−0.2	0.77
2	WILHELMSHAVEN, Jade River	53 31	8 09	0 33	Wilhelmshaven	321	0 00	0 00	0.0	0.0	1.00
3	Weser River Entr., light vessel	53 48	8 08	0 33	Wilhelmshaven	321	+0 07	+0 09	−3.9	−0.3	0.68
4	Hohe Weg Light, Weser River	53 43	8 15	0 33	Wilhelmshaven	321	+0 22	+0 24	−3.4	−0.4	0.72
5	Bremerhaven, Weser River	53 33	8 34	0 34	Wilhelmshaven	321	+0 50	+0 52	−3.2	−0.2	0.74
6	Braake, Weser River	53 20	8 29	0 34	Wilhelmshaven	321	+2 36	+2 38	−4.2	−0.4	0.66
7	Elsfleth, Weser River	53 14	8 28	0 34	Wilhelmshaven	321	+2 56	+2 58	−5.4	−0.6	0.56
8	Vegesack, Weser River	53 11	8 37	0 34	Wilhelmshaven	321	+3 36	+3 38	−8.2	−0.8	0.34
9	Helgoland Island	54 11	7 53	0 32	Wilhelmshaven	321	−0 58	−0 56	−5.2	−0.6	0.59
10	Elbe R. E., outer light vessel No. 1	54 00	8 15	0 33	Wilhelmshaven	321	+0 02	+0 04	−4.2	−0.4	0.67
11	Cuxhaven, Elbe River	53 52	8 42	0 35	Wilhelmshaven	321	+0 34	+0 35	−3.4	−0.4	0.73
12	Brunsbüttel, Elbe River	53 53	9 06	0 36	Wilhelmshaven	321	+1 37	+1 38	−3.8	−0.4	0.68
13	Glückstadt, Elbe River	53 47	9 24	0 38	Wilhelmshaven	321	+2 34	+2 35	−3.4	−0.4	0.72
14	Brunshausen, Elbe River	53 37	9 31	0 38	Wilhelmshaven	321	+3 33	+3 34	−4.4	−0.4	0.65
15	Lühe, Elbe River	53 35	9 38	0 39	Wilhelmshaven	321	+3 51	+3 53	−4.8	−0.6	0.63
16	Hamburg, Elbe River	53 33	9 59	0 40	Wilhelmshaven	321	+4 50	+4 51	−7.0	−0.8	0.44
17	Büsum	54 08	8 52	0 35	Wilhelmshaven	321	+1 06	+1 08	−2.0	−0.2	0.85
18	Eider River Entr., light vessel	54 16	8 19	0 33	Wilhelmshaven	321	−0 38	−0 36	−3.8	−0.4	0.69
19	Tönning, Eider River	54 19	8 57	0 36	Wilhelmshaven	321	+1 39	+1 40	−2.5	−0.3	0.80
20	Husum	54 29	9 01	0 36	Wilhelmshaven	321	+2 04	+2 06	−2.8	−0.2	0.77
21	Pellworm Island	54 31	8 41	0 35	Wilhelmshaven	321	+1 35	+1 36	−3.8	−0.4	0.70
22	Wyk, Föhr Island	54 41	8 34	0 34	Wilhelmshaven	321	+1 31	+1 32	−5.4	−0.6	0.56
23	Amrum Island	54 38	8 23	0 34	Wilhelmshaven	321	+0 26	+0 27	−4.6	−0.4	0.63
24	Lister-deep, Fairway buoy	55 05	8 27	0 34	Cape Town	261	−0 50	−0 48	−0.6	0.0	1.21
	DENMARK.										
	North Sea.										
25	Sönderho, Fanö Island	55 20	8 28	0 34	Cape Town	261	+1 02	+1 03	+0.6	0.0	1.21
26	Nordby	55 27	8 25	0 34	Cape Town	261	+1 24	+1 25	+0.2	0.0	1.10
27	Hjerting	55 31	8 21	0 33	Cape Town	261	+1 26	+1 27	0.0	−0.2	1.04
28	Blaavand Point	55 33	8 05	0 32	Cape Town	261	+0 22	+0 23	+0.4	0.0	1.16
29	Horn Reefs	55 34	7 19	0 29	Cape Town	261	−1 40	−1 38	+0.2	0.0	1.10
30	Nymindegab	55 48	8 11	0 33	Apia	209	−3 47	−3 47	−1.0	−0.2	0.65
31	Thybö Rön	56 43	8 14	0 33	Apia	209	−2 22	−2 22	−1.3	−0.1	0.54
32	Hirtshals	57 35	9 57	0 40	Apia	209	−2 11	−2 11	−1.8	−0.2	0.38
33	Skagen or the Skaw	57 44	10 38	0 43	Galveston	123	−0 11	+0 55	−0.4	+0.2	1.01
34	Copenhagen, Baltic Sea	55 42	12 36	0 50	Galveston	123	+3 46	+4 27	−0.8	+0.2	0.73
	NORWAY.						*Local time.*				
35	Frederickstad	59 13	10 57	0 44	Astoria	151	+4 10	+3 14	−6.0	−1.2	0.24
36	Christiania	59 54	10 47	0 43	Astoria	151	+4 30	+3 21	−6.6	−1.2	0.16
37	Frederiksvaern	59 01	10 05	0 40	Astoria	151	+3 42	+2 44	−6.6	−1.2	0.17
38	Oster-Risöer	58 43	9 15	0 37	Astoria	151	+3 16	+2 24	−6.6	−1.2	0.16
39	Arendal	58 26	8 47	0 35	Astoria	151	+3 25	+2 54	−6.8	−1.2	0.15
40	Christiansand	58 08	8 00	0 32	Cape Town	261	+2 41	+2 29	−3.0	−0.4	0.23
41	Tananger	58 55	5 34	0 22	Cape Town	261	−4 23	−4 20	−2.6	−0.4	0.35
42	Stavanger	58 58	5 44	0 23	Cape Town	261	−4 16	−4 05	−2.4	−0.2	0.40
43	Skudesnaes	59 08	5 18	0 21	Cape Town	261	−3 46	−3 45	−2.2	−0.4	0.46
44	Bergen	60 24	5 18	0 21	Cape Town	261	−3 44	−3 50	−0.4	−0.2	0.91
45	Romsdals Islands	62 45	6 00	0 24	Wilhelmshaven	321	−2 20	−2 18	−7.5	−0.7	0.39
46	Christiansund	63 08	8 00	0 32	Wilhelmshaven	321	−1 55	−1 53	−7.2	−0.6	0.41
47	Trondhjem or Munkholm	63 27	10 24	0 42	Wilhelmshaven	321	−1 37	−1 37	−5.0	−0.4	0.58
48	Traen Islands	66 31	12 02	0 48	Wilhelmshaven	321	−1 21	−1 19	−6.4	−0.6	0.47
49	Vaero, Lofoten Islands	67 38	12 37	0 50	Wilhelmshaven	321	−1 06	−1 05	−4.7	−0.3	0.60
50	Andenaes, Lofoten Islands	69 12	16 11	1 05	Wilhelmshaven	321	+0 11	+0 13	−6.2	−0.6	0.51
51	Tromsöe	69 40	19 00	1 16	Wilhelmshaven	321	+1 04	+1 06	−5.4	−0.6	0.56
52	Hammerfest	70 40	23 40	1 35	Wilhelmshaven	321	+1 48	+1 57	−5.0	−0.4	0.59
53	Vardöe	70 22	31 08	2 05	Wilhelmshaven	321	+5 07	+5 13	−4.7	−0.4	
	RUSSIA.										
54	Petshenga Bay	69 38	31 24	2 06	Wilhelmshaven	321	+6 10	+6 26	−6.0	−0.6	0.52
55	Kola	68 49	33 00	2 12	Wilhelmshaven	321	+6 31	+6 46	−6.4	−0.6	0.49
56	Teriberskoi Bay	69 07	35 09	2 21	Wilhelmshaven	321	+6 36	+6 40	−1.1	−0.1	0.91
57	Sem or Seven Islands	68 49	37 22	2 29	Wilhelmshaven	321	+7 36	+7 40	−2.0	−0.2	0.88
58	Sviatoi Noss	68 09	39 49	2 39	Wilhelmshaven	321	+8 31	+8 35	+0.1	+0.1	1.00

Number.	Interval. Mean. HWI.	Interval. Mean. LWI.	Interval. Tropic. HHWI.	Interval. Tropic. LLWI.	Range of tide. Mean (Mn).	Range of tide. Spring (Sg).	Range of tide. Neap (Np).	Range of tide. Great tropic (Gc).	Tropic diurnal inequality. HWQ.	Tropic diurnal inequality. LWQ.	Diurnal wave. Tropic HW interval.	Diurnal wave. Tropic range.	Mean sea level above plane of— Predictions.	Mean sea level above plane of— Tropic LLW.	Variation of the compass.
	h. m.	h. m.	h. m.	h. m.	feet.	feet.	feet.	feet.	feet.	feet.	h. m.	feet.	feet.	feet.	West. °
1	11 50	5 38	11 45a	5 45b	8.5	10.7	6.0	8.8	0.9	0.6	.....	1.1	5.4	4.8	12.0
2	0 08	6 14	0 00a	6 19a	11.1	13.8	8.0	11.1	0.9	0.5	22 36	1.1	6.9	5.5	12.0
3	0 10	6 23	0 05b	6 30b	7.5	9.5	5.3	7.8	0.9	0.6	.....	1.0	4.8	3.8	12.0
4	0 25	6 38	0 19b	6 47b	8.0	10.1	5.7	8.3	0.9	0.6	.....	1.1	5.0	4.1	11.5
5	0 54	7 07	0 49b	7 14b	8.2	10.4	5.8	8.5	0.9	0.6	.....	1.1	5.2	4.2	11.5
6	2 40	8 53	2 36b	9 00b	7.3	9.1	5.3	8.0	0.9	0.5	.....	1.0	4.6	3.9	11.5
7	3 00	9 13	2 56b	9 21b	6.2	7.8	4.5	6.8	0.8	0.4	.....	0.9	3.9	3.3	11.5
8	3 40	9 53	3 35b	10 02b	3.8	4.7	2.7	4.3	0.6	0.3	.....	0.7	2.4	2.1	11.5
9	11 29	5 17	11 25a	5 24b	6.5	8.	4.7	7.2	0.8	0.4	9 30	0.9	4.0	3.5	12.0
10	0 05	6 18	0 01b	6 25b	7.4	9.2	5.3	8.1	0.9	0.5	.....	1.0	4.6	4.0	12.0
11	0 39	6 51	0 36b	6 57b	8.1	10.1	5.8	8.8	0.9	0.5	.....	1.0	5.0	4.3	11.5
12	1 43	7 55	1 39b	8 02b	7.6	9.5	5.5	8.3	0.9	0.5	.....	1.0	4.8	4.1	11.5
13	2 42	8 54	2 39b	9 00b	8.0	10.0	5.8	8.7	0.9	0.5	.....	1.0	5.0	4.3	11.0
14	3 41	9 53	3 37b	10 00b	7.2	9.0	5.2	7.9	0.9	0.5	.....	1.0	4.5	3.9	11.0
15	4 00	10 13	3 56b	10 20b	6.8	8.5	4.9	7.5	0.8	0.5	.....	0.9	4.2	3.7	11.0
16	5 00	11 12	4 55b	11 20b	4.9	6.1	3.5	5.5	0.7	0.4	.....	0.8	3.0	2.7	11.0
17	1 11	7 24	1 08b	7 30b	9.4	11.7	6.8	10.2	1.0	0.5	.....	1.1	5.8	5.0	11.5
18	11 50	5 38	11 46a	5 45b	7.7	9.6	5.5	8.4	0.9	0.5	.....	1.0	4.8	4.1	11.5
19	1 45	7 57	1 42b	8 03b	8.9	11.0	6.4	9.7	1.0	0.5	.....	1.1	5.5	4.7	11.5
20	2 10	8 23	2 06b	8 30b	8.6	10.8	6.2	9.3	0.9	0.5	.....	1.1	5.4	4.6	11.5
21	1 40	7 52	1 36b	7 59b	7.8	9.7	5.6	8.5	0.9	0.5	.....	1.0	4.8	4.2	11.5
22	1 35	7 47	1 31b	7 55b	6.2	7.8	4.5	6.8	0.8	0.4	.....	0.9	3.9	3.3	11.5
23	0 30	6 42	0 26b	6 49b	7.0	8.8	5.0	7.7	0.9	0.5	.....	1.0	4.4	3.8	11.5
24	0 20	6 33	0 15b	6 42b	4.2	5.2	3.0	4.7	0.7	0.3	.....	0.7	2.6	2.3	12.0
25	2 12	8 24	2 07b	8 33b	4.2	5.3	3.0	4.7	0.7	0.3	.....	0.7	2.6	2.3	12.0
26	2 34	8 46	2 29b	8 55b	3.8	4.7	2.7	4.3	0.6	0.3	.....	0.7	2.4	2.1	12.0
27	2 35	8 47	2 30b	8 57b	3.6	4.5	2.6	4.1	0.6	0.3	.....	0.7	2.2	2.0	12.0
28	1 30	7 42	1 25b	7 51b	4.0	5.0	2.9	4.5	0.6	0.3	.....	0.7	2.5	2.2	12.0
29	11 50	5 38	11 45a	5 47b	3.8	4.8	2.7	4.3	0.6	0.3	.....	0.7	2.4	2.1	12.5
30	2 35	8 47	2 27b	9 02b	1.7	2.1	1.2	1.9	0.2	0.1	.....	0.5	1.0	0.9	12.0
31	4 00	10 12	3 52b	10 27b	1.4	1.8	1.0	1.6	0.2	0.1	.....	0.4	0.9	0.8	12.0
32	4 18	10 30	4 07b	10 51b	1.0	1.2	0.7	1.1	0.1	0.0	.....	0.4	0.6	0.5	11.5
33	[5 46]	[11 58]	7 01b	11 16b	[0.8]	[1.0]	[0.5]	1.5	.....	.....	.....	1.2	0.5	0.8	11.0
34	[9 33]	[3 21]	11 05b	2 30b	[0.5]	[0.6]	[0.3]	1.1	.....	.....	1 06	0.9	0.3	0.6	10.0
35	5 02	10 30	5 19b	9 59b	1.5	1.8	1.4	2.5	0.7	0.9	.....	1.0	0.9	1.0	11.0
36	5 22	10 37	5 45b	9 54b	1.0	1.2	0.9	1.8	0.6	0.7	.....	0.9	0.6	0.7	11.0
37	4 34	10 00	4 56b	9 18b	1.1	1.3	1.0	1.9	0.6	0.7	.....	1.0	0.6	0.8	11.5
38	4 08	9 40	4 31b	8 59b	1.0	1.2	0.9	1.8	0.6	0.7	.....	0.9	0.6	0.7	12.0
39	4 17	10 10	4 43b	9 22b	0.8	1.0	0.7	1.5	0.5	0.6	.....	0.8	0.5	0.6	12.0
40	4 16	10 15	4 11b	10 31b	0.8	1.1	0.5	1.2	0.2	0.1	.....	0.2	0.6	0.6	12.5
41	9 36	3 25	9 31a	3 41b	1.2	1.6	0.7	1.7	0.3	0.1	.....	0.3	0.8	0.8	14.0
42	9 43	3 40	9 39a	3 54b	1.4	1.9	0.8	1.9	0.3	0.1	.....	0.3	1.0	0.9	14.0
43	10 13	4 00	10 09a	4 13b	1.6	2.1	0.9	2.1	0.3	0.1	.....	0.3	1.0	1.0	14.0
44	10 15	3 55	10 12a	4 04b	3.2	4.1	2.1	3.8	0.4	0.1	.....	0.4	2.0	1.8	14.5
45	10 35	4 23	9 58a	3 52b	4.3	5.7	2.8	4.6	0.3	0.4	.....	0.5	2.8	2.4	14.5
46	11 00	4 48	10 26a	4 20b	4.6	6.0	2.9	4.9	0.3	0.4	.....	0.5	3.0	2.5	13.0
47	11 18	5 04	10 49a	4 40b	6.4	8.4	4.1	6.8	0.4	0.5	.....	0.6	4.2	3.4	11.5
48	11 35	5 23	10 58a	4 52b	5.2	6.9	3.3	5.6	0.4	0.5	.....	0.6	3.4	2.8	11.0
49	11 50	5 37	11 22a	5 14b	6.7	8.8	4.3	7.1	0.4	0.5	.....	0.6	4.4	3.6	10.5
50	0 42	6 55	0 42b	6 55b	5.6	7.0	4.0	5.7	0.7	0.4	.....	0.8	3.5	2.8	7.5
51	1 35	7 48	1 35b	7 48b	6.2	7.8	4.4	6.8	0.7	0.4	.....	0.8	3.9	3.1	5.5
52	2 20	8 40	2 20b	8 40b	6.6	8.3	4.7	7.2	0.8	0.4	.....	0.9	4.2	3.3	2.0
53	5 40	11 57	5 40b	11 57b	7.2	9.0	5.1	7.8	0.8	0.4	.....	0.9	4.5	3.6	3.0E
															East.
54	6 43	0 45	6 43b	0 45a	5.8	7.3	4.1	6.4	0.7	0.4	.....	0.8	3.6	2.9	3.0
55	7 04	1 05	7 04b	1 05a	5.4	6.7	3.8	5.9	0.7	0.3	.....	0.8	3.4	2.7	4.0
56	7 10	1 00	7 10b	1 00a	10.1	12.6	7.2	10.9	1.0	0.5	.....	1.1	6.3	5.0	6.0
57	8 10	2 00	8 10b	2 00a	9.2	11.5	6.5	9.8	0.9	0.4	.....	1.0	5.8	4.6	7.0
58	9 05	2 55	9 05b	2 55a	11.1	13.9	7.8	11.9	1.0	0.5	.....	1.1	7.0	5.6	8.5

Number.	Station.	Geographic position. Latitude.	Longitude. Arc.	Longitude. Time.	Standard port for reference. Name.	Page.	Tidal differences. Time. HW.	Time. LW.	Height. HW.	Height. LW.	Ratio of ranges.
	EUROPE (WEST COAST)—Cont'd.										
	RUSSIA—continued.										
	White Sea.	*North.*	*East.*				*Local time.*		*Mean Low Water Springs.*		
		° ′	° ′	h. m.			h. m.	h. m.	feet.	feet.	
1	Cape Orlov	67 11	41 22	2 45	Brest	273	−5 44	−5 56	+0.4	−0.4	1.05
2	Morjovets Island	66 46	42 30	2 50	Brest	273	−5 12	−5 24	−2.0	−0.8	0.91
3	Mezen	65 48	44 20	2 57	Brest	273	−2 20	−2 13	−1.0	−0.6	0.97
4	Sosnovets Island	66 29	40 43	2 43	Brest	273	−4 48	−4 57	−1.2	−0.8	0.95
5	Tetrina	66 02	38 21	2 33	Cape Town	261	+1 28	+1 33	+1.8	0.0	1.44
6	Kandalaksha	67 08	32 28	2 10	Cape Town	261	+1 37	+2 01	+2.0	+0.2	1.50
7	Jijginsk Island	65 12	36 49	2 27	Cape Town	261	−8 58	−8 44	−0.6	−0.2	0.87
8	Onega	63 57	38 07	2 32	Cape Town	261	−5 02	−4 40	+4.2	+0.4	2.11
9	Karetski Noss	65 38	39 40	2 39	Cape Town	261	−9 44	−9 30	+0.6	0.0	1.21
10	Archangel, Dwina River	64 36	40 41	2 43	Apia	209	+0 23	+1 18	−0.9	−0.1	0.69
	SPITZBERGEN.										
11	Danes Island	79 41	11 02	0 44	Cape Town	261	−1 21	−1 21	+0.6	0.0	1.21
12	Recherche Bay	77 30	14 44	0 59	Cape Town	261	−0 39	−0 38	+1.9	+0.1	1.53
	NOVA ZEMBLA.										
13	Cape Costin	70 58	58 10	3 33	Cape Town	261	−4 06	−4 02	+2.2	+0.2	1.56
14	Matoshkin Shar, west entrance	73 17	54 21	3 37	Cape Town	261	−4 36	−4 32	+2.6	+0.2	1.64
15	Mashigin Bay	74 43	56 12	3 45	Cape Town	261	−3 06	−3 02	+2.4	+0.2	1.61

Number.	Interval.				Range of tide.				Tropic diurnal inequality.		Diurnal wave.		Mean sea level above plane of—		Variation of the compass.
	Mean.		Tropic.												
	HWI.	LWI.	HHWI.	LLWI.	Mean (Mn).	Spring (Sg).	Neap (Np).	Great tropic (Gc).	HWQ.	LWQ.	Tropic HW interval.	Tropic range.	Predictions.	Tropic LLW.	
	h. m.	*h. m.*	*h. m.*	*h. m.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*h. m.*	*feet.*	*feet.*	*feet.*	*East.* °
1	10 38	4 26	10 38*b*	4 26*a*	15.6	19.5	11.1	16.5	1.2	0.6	.....	1.3	9.8	7.8	9.0
2	11 10	4 58	11 10*b*	4 58*a*	13.5	16.8	9.6	14.2	1.1	0.5	.....	1.2	8.4	6.8	9.5
3	1 38	8 10	1 38*a*	8 10*a*	14.4	18.0	10.2	15.2	1.1	0.6	.....	1.3	9.0	7.2	10.0
4	11 34	5 25	11 34*b*	5 25*a*	14.2	17.7	10.1	15.0	1.1	0.6	.....	1.3	8.8	7.1	8.5
5	3 07	9 23	3 07*a*	9 23*a*	5.2	6.5	3.7	5.7	0.7	0.3	.....	0.8	3.2	2.6	7.0
6	3 15	9 50	3 15*a*	9 50*a*	5.4	6.7	3.8	5.9	0.7	0.3	.....	0.8	3.4	2.7	3.5
7	5 05	11 30	5 05*a*	11 30*a*	3.0	3.8	2.1	3.4	0.5	0.3	.....	0.6	1.9	1.5	6.0
8	9 02	3 10	9 02*a*	3 10*b*	7.3	9.1	5.2	7.9	0.8	0.4	.....	0.9	4.6	3.6	6.5
9	4 20	10 45	4 20*a*	10 45*a*	4.2	5.3	3.0	4.6	0.6	0.3	.....	0.7	2.6	2.1	8.0
10	7 18	2 00	7 18*a*	2 00*b*	1.8	2.2	1.3	2.1	0.4	0.2	.....	0.4	1.1	0.9	8.0
															West.
11	0 14	6 25	0 14*b*	6 25*b*	4.2	5.3	3.0	4.6	0.6	0.3	.....	0.7	2.6	2.1	14.0
12	0 56	7 08	0 56*b*	7 08*b*	5.3	6.6	3.8	5.8	0.7	0.3	.....	0.8	3.3	2.6	10.5
															East.
13	10 00	3 50	10 00*b*	3 50*a*	5.6	7.0	4.0	6.2	0.7	0.4	.....	0.8	3.5	2.8	16.0
14	9 30	3 20	9 30*b*	3 20*a*	5.9	7.4	4.2	6.5	0.7	0.4	.....	0.8	3.7	2.9	17.0
15	11 00	4 50	11 00*b*	4 50*a*	5.8	7.3	4.1	6.4	0.7	0.4	.....	0.8	3.6	2.9	18.5

No.	Station.	K_1 $K_1°$	K_2 $K_2°$	L_2 $L_2°$	M_1 $M_1°$	M_2 $M_2°$	M_4 $M_4°$	M_6 $M_6°$	N_2 $N_2°$	O_1 $O_1°$
1	St. Johns, Newfoundland	0.245 108	0.120 259	0.020 211	....	1.172 209.6	0.020 48	0.020 344	0.232 195	0.229 77
2	Halifax (Navy-Yard), Nova Scotia	0.338 60	0.136 257	0.109 258	0.012 57	2.085 223.5	0.116 25	0.014 72	0.453 205	0.156 38
3	Eastport (Pearce's Wharf), Me	0.480 129	0.369 2	0.392 342	0.013 267	8.576 326.1	0.208 179	0.171 242	1.725 298	0.377 111
4	Portland (Central Wharf), Me	0.471 131	0.225 358	0.248 20	....	4.336 323.6	0.084 75	0.042 71	0.957 292	0.345 109
5	Boston (Navy-Yard), Mass	0.443 141	0.182 16	0.308 4	0.030 121	4.439 335.4	0.056 164	0.189 262	1.017 304	0.365 120
6	Newport (Fort Adams), R. I	0.209 96	0.098 239	0.016 210	0.008 70	1.661 217.5	0.179 120	0.011 127	0.365 200	0.164 124
7	New London (Custom-House Wharf), Conn	0.245 112	0.066 284	0.052 342	0.003 303	1.140 274.8	0.066 65	0.040 139	0.262 248	0.179 137
8	Willets Point (U. S. Engineer School), N. Y	0.339 119	0.146 359	0.300 3	0.020 166	3.649 328.6	0.096 211	0.210 84	0.744 304	0.198 150
9	New York (Governors Island), N. Y	0.322 117	0.120 259	0.106 222	0.020 128	2.121 231.0	0.090 325	0.072 87	0.480 213	0.159 106
10	Sandy Hook (The Horseshoe), N. J	0.333 102	0.123 243	0.110 203	0.016 119	2.219 217.6	0.026 336	0.054 353	0.503 201	0.172 98
11	Philadelphia (Chestnut Street Pier), Pa	0.297 219	0.092 70	0.202 55	0.021 288	2.131 49.1	0.323 7	0.105 205	0.372 30	0.229 201
12	Old Point Comfort (Fort Monroe), Va	0.186 119	0.062 277	0.064 270	....	1.220 248.4	0.039 244	0.016 191	0.269 226	0.138 143
13	Washington (Seventh street), D. C	0.152 272	0.074 268	0.117 251	0.020 346	1.373 228.9	0.074 358	0.030 54	0.241 205	0.121 291
14	Baltimore (Fells Point), Md	0.129 299	0.034 242	0.032 249	0.024 170	0.572 190.2	0.011 329	0.006 185	0.092 163	0.112 321
15	Wilmington (Cape Fear River), N. C	0.250 130	0.028 344	0.033 296	....	1.152 292.1	0.183 149	0.026 278	0.175 288	0.156 169
16	Charleston (Custom-House Wharf), S. C	0.339 122	0.105 241	0.135 222	....	2.483 213.6	0.090 242	0.025 311	0.559 196	0.248 125
17	Savannah Entrance (Tybee Light), Ga	0.341 114	0.154 246	0.135 198	....	3.219 209.5	0.058 287	0.021 286	0.677 190	0.245 120
18	Fernandina (Dade street), Fla	0.346 127	0.133 267	0.146 222	0.013 137	2.854 228.3	0.032 295	0.032 8	0.585 217	0.252 129
19	Key West (Fort Taylor), Fla	0.274 274	0.049 281	0.023 276	....	0.565 260.3	0.036 235	0.011 180	0.123 232	0.294 273
20	Galveston (Doswell's Wharf), Tex	0.346 321	0.018 132	0.014 174	....	0.224 124.5	0.002 128	0.004 29	0.058 111	0.333 312
21	Buenos Ayres, Argentina	0.253 18	0.014 344	0.048 220	....	0.814 184.7	0.073 90	0.018 292	0.341 149	0.448 211
22	Cape Horn (St. Martin's Cove, Hermite Island), South America.	0.563 55	0.061 148	0.045 138	....	2.017 105.0	0.095 216	0.034 333	0.311 72	0.412 345
23	Valparaiso, Chile	0.499 330	0.142 288	0.041 229	0.021 287	1.410 279.2	0.007 147	0.004 107	0.359 248	0.328 286
24	Panama (Naos Island), Colombia	0.440 340	0.392 142	0.226 167	....	5.928 86.7	0.218 358	0.041 276	1.297 54	0.135 344
25	San Diego (La Playa), Cal	1.073 95	0.207 266	0.046 245	0.039 97	1.701 276.6	0.026 186	0.010 112	0.408 257	0.697 79
26	San Francisco Entrance (Fort Point), Cal	1.218 106	0.116 327	0.073 0	0.044 83	1.696 330.7	0.086 32	0.012 342	0.363 304	0.766 88
27	Astoria (Columbia River), Oreg	1.316 129	0.220 24	0.157 11	0.052 152	2.971 8.6	0.100 317	0.084 106	0.586 346	0.784 114
28	Port Townsend (Puget Sound), Wash	2.511 148	0.157 131	0.104 151	0.108 162	2.217 105.6	0.131 290	0.033 233	0.471 75	1.454 127
29	Sitka, Alaska	1.507 125	0.315 21	0.109 28	0.029 150	3.583 2.5	0.013 140	0.002 94	0.758 335	0.905 109
30	Kodiak (St. Paul), Kodiak Island, Alaska	1.330 139	0.301 39	0.106 358	0.060 150	3.228 7.7	0.038 97	0.032 239	0.676 342	0.897 122
31	St. Michael (Norton Sound), Alaska	1.354 297	0.033 338	0.026 292	0.076 272	0.554 235.4	0.042 150	0.018 266	0.179 178	0.760 247
32	Yokohama (Nishihatoba), Japan	0.802 179	0.187 178	0.027 133	....	1.566 154.3	0.048 98	0.012 109	0.286 145	0.621 161
33	Nagasaki, Japan	0.788 193	0.344 259	0.079 243	....	2.837 228.9	....	....	0.540 213	0.624 183
34	Tientsin Entrance (Taku Light Ship), China	1.330 157	0.145 162	0.026 114	....	3.474 94.4	0.281 99	....	0.184 74	0.948 126
35	Shanghai (Wusung Inner Bar), China	0.656 207	0.281 77	0.058 59	....	3.109 30.3	0.700 331	....	0.401 2	0.462 149
36	Amoy (Inner Harbor), China	0.868 274	0.364 61	0.111 30	....	6.125 1.2	0.042 92	....	0.776 332	0.639 252
37	Hongkong, China	1.190 296	0.147 280	0.083 274	0.060 100	1.438 266.5	0.076 322	0.014 140	0.280 255	0.904 246

No.	P_1 $P_1°$	Q_1 $Q_1°$	S_2 $S_2°$	T_2 $T_2°$	λ_2 $\lambda_2°$	μ_2 $\mu_2°$	ν_2 $\nu_2°$	MS_4 $MS_4°$	Sa Sa°	Ssa Ssa°	Length of series analyzed.
1	0.083 86	0.045 61	0.480 254	.....	.....	.....	0.046 197	.....	0.200 268	0.071 217	Hourly Ordinates for 236 days beginning May 10, 1880.*
2	0.102 63	0.019 51	0.454 258	.....	.....	0 062 196	0.154 200	0.060 154	0.150 252	0.158 146	Hourly Ordinates for 5 years, 1851, 1852, 1860, 1861, and 1895–96.†
3	0.144 134	0.059 99	1.399 6	.....	.....	0.067 78	0.413 299	.....	0.105 338	0.044 309	Hourly Ordinates for 1 calendar year, 1862.*
4	0.138 132	0.065 83	0.684 0	0.040 0	.....	0.021 208	0.215 302	.....	0.200 178	0.016 181	Hourly Ordinates for 1 year beginning Aug. 1, 1864.*
5	0.148 137	0.057 125	0.707 14	0.042 14	.....	0.025 340	0.211 306	.....	0.094 116	0.081 99	Hourly Ordinates for 1 calendar year, 1869.*
6	0.069 115	0.047 116	0.384 237	0.023 237	0.012 233	0.078 199	0.060 204	.....	0.144 158	0.067 145	Hourly Ordinates for 1 year beginning Apr. 1, 1892.*
7	0.078 114	.....	0.214 288	.....	.....	.....	0.045 263	.....	0.241 153	0.120 90	Hourly Ordinates for 2 years, beginning Nov. 1, 1882, and May 12, 1899.*
8	0.091 134	.....	0.644 352	.....	.....	.....	0.112 312	.....	0.153 110	0.113 111	Hourly Ordinates for 2 years, beginning July 1, 1891, and Jan. 1, 1894.*
9	0.104 108	0.030 115	0.407 257	.....	.....	0.067 235	0.095 213	.....	0.221 141	0.162 85	Hourly Ordinates for 3 calendar years, 1876, 1877, and 1878.*
10	0.105 105	0.032 110	0.426 246	.....	.....	0.068 226	0.096 199	.....	0.254 143	0.101 58	Hourly Ordinates for 8 calendar years, 1876 to 1881, 1887 and 1888.*
11	0.089 212	.....	0.278 90	0.016 90	.....	.....	0.114 25	0.099 56	0.600 116	0.330 36	Hourly Ordinates for 1 calendar year, 1901.*
12	0.064 114	0.044 130	0.227 269	.....	.....	.....	0.054 228	.....	0.320 126	0.106 161	Hourly Ordinates for 2 calendar years, 1865 and 1877.*
13	0.057 273	0.024 301	0.201 272	0.012 272	.....	.....	0.052 226	.....	0.272 128	0.194 163	Hourly Ordinates for 1 calendar year 1899.*
14	0.051 314	.....	0.075 225	.....	.....	.....	.....	.....	0.260 123	0.060 35	High and Low Waters for 1 year beginning May 12, 1845.*
15	0.083 132	0.037 204	0.104 344	.....	.....	.....	0.034 288	0.033 201	0.302 173	0.027 94	Hourly Ordinates from 7 a. m. to 6 p. m. for 2 calendar years, 1887 and 1890.*
16	0.111 120	0.048 127	0.433 240	.....	.....	.....	0.110 198	.....	0.288 186	0.165 84	Hourly Ordinates for 1 calendar year, 1859.*
17	0.118 114	0.060 122	0.586 235	.....	.....	.....	0.118 200	.....	0.217 124	0.103 25	Hourly Ordinates for 1 year beginning Oct. 6, 1889.*
18	0.110 126	0.055 133	0.509 258	.....	.....	0.082 273	0.117 210	.....	0.406 186	0.308 207	Hourly Ordinates for 1 year beginning Jan. 1, 1899.*
19	0.091 273	0.058 271	0.172 280	.....	.....	.....	0.024 235	.....	0.377 216	0.075 86	Hourly Ordinates for 1 year beginning May 1, 1857.*
20	0.129 319	0.066 341	0.043 134	.....	.....	.....	0.010 113	.....	0.528 170	0.332 44	Hourly Ordinates for 1 calendar year, 1852.*
21	0.123 20	0.085 124	0.167 266	.....	.....	.....	0.067 152	.....	0.389 321	0.166 336	Hourly Ordinates for 1 calendar year, 1893.*
22	0.186 55	0.080 310	0.224 148	.....	.....	.....	0.060 76	.....	.....	.....	Hourly Ordinates for Oct., 1842.*
23	0.161 322	0.064 264	0.466 300	.....	.....	0.034 259	0.069 252	.....	0.151 351	0.091 228	Hourly Ordinates for 1 year beginning Feb. 1, 1892.*
24	0.123 342	0.032 36	1.656 144	.....	0.033 281	0.185 33	0.151 59	.....	0.685 170	0.478 114	Hourly Ordinates for 1 calendar year, 1882.*
25	0.360 94	0.135 71	0.697 275	0.041 275	0.024 232	0.025 245	0.079 260	0.021 184	0.056 125	0.028 276	Hourly Ordinates for 3 calendar years, 1869–1871.*
26	0.368 104	0.124 83	0.382 335	0.023 335	.....	.....	0.070 307	0.039 37	0.398 156	0.184 221	Hourly Ordinates for 4 calendar years, 1863, 1864, 1865, and 1870.*
27	0.374 126	0.129 111	0.767 39	0.045 39	0.050 14	0.022 129	0.170 322	0.054 340	0.061 299	0.064 148	Hourly Ordinates for 2 calendar years, 1874 and 1875.*
28	0.300 147	0.237 119	0.546 130	0.032 130	0.032 166	0.081 353	0.094 84	0.067 313	0.084 224	0.081 173	Hourly Ordinates for 3 calendar years, 1874–1876.*
29	0.465 124	0.136 107	1.137 34	0.067 34	.....	0.085 321	0.142 343	.....	0.260 284	0.055 336	Hourly Ordinates for 1 year beginning June 27, 1893.*
30	0.444 134	0.161 112	1.077 41	0.064 41	.....	0.067 322	0.123 350	.....	0.899 216	0.495 49	Hourly Ordinates for 1 year beginning Sept. 1, 1885.*
31	0.448 297	0.150 228	0.121 338	0.007 338	.....	.....	0.035 183	.....	.....	.....	Hourly Ordinates for 58 days in 1891, 29 days in 1898, and 58 days in 1899.*
32	0.298 175	0.127 142	0.731 185	.....	.....	.....	0.046 146	.....	0.341 190	0.100 118	Hourly Ordinates for 1 calendar year, 1893.*
33	0.263 193	0.121 178	1.173 259	.....	.....	.....	0.100 215	.....	.....	.....	Hourly Ordinates for 3 months, Mar., Apr., and May, 1891.‡
34	0.440 155	0.184 110	0.532 157	0.031 154	.....	.....	0.036 77	0.086 161	.....	.....	High and Low Waters for 2 months, Sept. and Oct., 1888.*
35	0.217 207	0.090 120	1.032 77	0.061 76	.....	.....	0.078 6	0.465 18	1.518 128	0.478 73	High and Low Waters for 1 calendar year, 1893.*
36	0.287 272	0.124 241	1.338 57	0.079 55	.....	.....	0.151 336	.....	.....	.....	High and Low Waters for 2 months, Jan. and Feb., 1892.*
37	0.384 288	0.156 230	0.564 291	0.035 281	.....	0.071 238	0.061 212	0.067 301	0.450 234	0.190 94	Hourly Ordinates for 2 calendar years, 1883 and 1889.§,††

No.	Station.	K_1 $K_1°$	K_2 $K_2°$	L_2 $L_2°$	M_1 $M_1°$	M_2 $M_2°$	M_4 $M_4°$	M_6 $M_6°$	N_2 $N_2°$	O_1 $O_1°$
38	Singapore, Malay Peninsula	0.949	0.318	0.197	.....	2.602	0.058	0.085	0.452	0.948
		100	345	310	.....	300.0	264	43	272	53
39	Batavia, Java	0.817	0.073	0.030	.....	0.158	.....	.....	0.064	0.417
		144	271	89	.....	347.0	.....	.....	311	121
40	Manila (Pasig River Entr.), Philippine Islands	0.986	0.062	0.018	0.081	0.722	0.016	0.010	0.126	0.928
		320	324	330	332	310.2	347	274	291	279
41	Honolulu (Oahu Island), Hawaiian Islands	0.475	0.043	0.015	.....	0.523	0.001	0.002	0.086	0.260
		72	97	102	.....	109.4	28	69	98	60
42	Apia (Upolu Island), Samoan Islands	0.093	0.081	0.076	.....	1.255	.....	.....	0.308	0.070
		254	181	139	.....	186.0	.....	.....	166	248
43	Wellington, New Zealand	0.085	0.060	0.034	0.007	1.598	0.045	0.015	0.358	0.099
		81	339	71	106	137	332	185	104	36
44	Port Russell (Bay of Islands), New Zealand	0.192	0.106	0.067	.....	2.543	0.197	0.102	0.461	0.038
		205	276	248	.....	215.9	37	62	198	140
45	Sydney (Fort Denison), Australia	0.419	0.102	0.065	.....	1.636	.....	.....	0.324	0.337
		129	268	237	.....	254.0	.....	.....	250	86
46	Melbourne (Williamstown), Australia	0.294	0.028	0.013	.....	0.806	0.021	.....	0.098	0.216
		132	172	74	.....	69.4	49	.....	65	95
47	Port Adelaide (Semaphore), Australia	0.830	0.465	0.120	0.020	1.700	0.020	0.010	0.090	0.520
		52	178	140	16	120.0	174	259	114	32
48	Rangoon, Burma	0.675	0.615	0.458	0.030	5.778	0.426	0.220	1.051	0.287
		35	170	147	118	131.4	170	86	116	27
49	Calcutta (Kidderpore), India	0.391	0.444	0.203	0.027	3.626	0.738	0.158	0.663	0.207
		54	94	70	247	57.7	37	323	44	22
50	Madras, India	0.292	0.116	0.040	0.014	1.082	0.007	0.008	0.236	0.097
		342	277	299	338	250.8	194	160	242	327
51	Colombo (Ceylon), India	0.238	0.108	0.027	0.011	0.579	0.017	0.004	0.073	0.094
		33	90	51	354	49.9	170	27	34	62
52	Bombay (Apollo Bandar), India	1.398	0.404	0.084	0.051	4.037	0.131	0.010	0.997	0.660
		45	354	309	47	330.3	328	89	314	48
53	Karachi, India	1.293	0.278	0.080	0.042	2.535	0.028	0.048	0.603	0.654
		46	319	297	50	294.0	7	207	277	47
54	Aden, Arabia	1.303	0.202	0.039	0.048	1.569	0.006	0.005	0.432	0.657
		35	240	225	36	226.5	313	345	221	37
55	Cape Town (Table Bay), Africa	0.178	0.245	0.072	0.011	1.596	0.039	0.013	0.344	0.053
		127	90	47	66	44.5	96	296	22	243
56	Lisbon (Arsenal), Portugal	0.193	0.408	0.142	.....	3.829	0.233	0.082	0.980	0.201
		39	83	77	.....	59.1	196	284	41	309
57	Rochelle, France	0.210	0.594	0.131	.....	5.822	0.915	0.079	1.223	0.233
		67	122	108	.....	92.3	356	309	72	321
58	Brest, France	0.207	0.712	0.211	0.007	6.761	0.181	0.116	1.388	0.222
		69	137	96	166	99.2	85	325	80	324
59	Havre, France	0.295	0.846	0.600	.....	8.741	0.784	0.574	1.702	0.161
		119	331	302	.....	285.5	85	301	262	7
60	Edinburgh (Leith), Scotland	.....	0.490	0.238	.....	6.144	0.031	.....	1.176	.....
		.....	93	72	.....	57.0	24	.....	33	.....
61	Hull (Humber River), England	.....	0.600	0.303	.....	7.812	0.283	.....	1.495	.....
		.....	221	198	.....	181.0	272	.....	154	.....
62	Sheerness (Thames River Entrance), England	0.377	0.470	0.347	.....	6.297	0.296	0.199	1.046	0.451
		14	47	6	.....	0.5	44	60	337	193
63	London (London Bridge), England	0.300	0.450	0.605	.....	8.313	0.821	.....	1.467	0.400
		41	101	92	.....	55.0	20	.....	25	220
64	Dover, England	0.140	0.562	0.374	.....	7.202	0.743	0.172	1.357	0.188
		48	28	354	.....	336.1	229	102	320	186
65	Portland Breakwater, England	0.295	0.301	0.171	0.015	2.048	0.468	0.207	0.477	0.163
		112	233	107	290	189.4	23	55	180	351
66	Liverpool, England	0.355	0.936	0.529	0.081	9.975	0.691	0.196	1.903	0.371
		192	1	329	300	320.6	211	331	299	38
67	Greenock (Firth of Clyde), Scotland	0.193	0.284	0.259	.....	4.357	0.100	.....	0.707	0.241
		224	27	316	.....	337.0	42	.....	309	54
68	Kingstown (Dublin Bay), Ireland	.....	0.280	0.221	.....	4.166	0.109	.....	0.794	.....
		.....	351	320	.....	312.0	354	.....	290	.....
69	Queenstown (Cork Harbor), Ireland	.....	0.350	0.120	.....	4.215	0.110	.....	0.657	.....
		.....	181	137	.....	135.0	180	.....	118	.....
70	Wilhelmshaven, Germany	0.255	0.440	0.668	.....	5.144	0.299	0.184	0.844	0.270
		41	72	31	.....	358.0	178	30	337	260

On the first line for each station the amplitudes (H) are given in feet, and on the second line the epochs (κ) in degrees. The British system has been adopted throughout this table.

* United States Coast and Geodetic Survey.

† Canadian Tidal Survey and E. Roberts, Nautical Almanac office, London.

No.	P_1 $P_1°$	Q_1 $Q_1°$	S_2 $S_2°$	T_2 $T_2°$	λ_2 $\lambda_2°$	μ_2 $\mu_2°$	ν_2 $\nu_2°$	MS_4 $MS_4°$	Sa Sa°	Ssa Ssa°	Length of series analyzed.
38	0.291 93	0.190 16	1.067 348	.....	.....	0.051 97	0.058 226	.....	0.308 209	0.312 234	Hourly Ordinates for 1 year beginning Oct. 1, 1882. ‡
39	0.238 146	0.104 111	0.193 294	.....	.....	.....	.....	.....	.....	.....	From the German Tide Tables for 1903.
40	0.304 317	0.181 254	0.301 29	0.018 29	.....	.....	0.024 293	.....	0.451 162	0.102 58	Hourly Ordinates for 1 year beginning Feb. 12, 1901.*
41	0.137 66	0.040 51	0.165 109	.....	.....	.....	0.013 188	.....	0.215 197	0.090 33	Hourly Ordinates for 1 year beginning June 17, 1891.*
42	0.030 252	.....	0.289 184	.....	.....	.....	.....	.....	.....	.....	From the German Tide Tables for 1903.
43	0.028 67	0.019 13	0.089 325	.....	.....	.....	0.068 108	.....	0.241 54	0.035 240	Hourly Ordinates for 1 calendar year, 1894.*
44	0.064 205	0.007 108	0.391 276	0.023 276	.....	0.061 156	0.089 200	.....	.....	.....	Hourly Ordinates for 58 days beginning Sept. 14, 1841.*
45	0.139 129	.....	0.375 268	.....	.....	.....	.....	.....	0.093 16	0.008 97	High and Low Waters for 1 year, 1888. ††
46	0.097 129	0.042 77	0.103 164	0.006 161	.....	.....	0.018 66	.....	.....	.....	High and Low Waters for 1 month, May, 1894.*
47	0.215 56	0.070 31	1.680 181	0.110 165	.....	.....	0.060 76	0.090 99	0.305 126	0.225 88	Hourly Ordinates for 2 years beginning Jan. 1, 1889, and Jan. 1, 1893. ‖
48	0.164 56	0.026 43	2.087 170	0.240 149	0.254 170	0.529 290	0.347 120	0.400 212	1.325 148	0.171 335	Hourly Ordinates for 15 years beginning Mar. 1, 1880. §, ¶
49	0.139 44	0.029 359	1.499 100	0.138 153	0.089 93	0.236 187	0.220 21	0.672 80	2.873 156	0.923 329	Hourly Ordinates for 14 years beginning Mar. 22, 1881. §, ¶
50	0.093 345	0.008 115	0.435 281	0.043 306	0.022 267	0.048 179	0.074 260	0.006 289	0.398 217	0.315 126	Hourly Ordinates for 10 years beginning Feb. 1, 1880. ¶
51	0.072 26	0.032 88	0.391 95	0.034 54	0.024 44	0.017 104	0.018 41	0.009 253	0.313 308	0.133 111	Hourly Ordinates for 6 years beginning Feb. 1, 1884. ¶
52	0.408 44	0.136 49	1.608 3	0.164 16	0.032 226	0.200 305	0.181 311	0.140 30	0.110 355	0.137 205	Hourly Ordinates for 17 years beginning Jan. 1, 1878. §, ¶
53	0.386 46	0.130 50	0.952 323	0.077 339	0.042 280	0.061 268	0.137 278	0.031 320	0.130 68	0.152 149	Hourly Ordinates for 27 years beginning May 1, 1867. §, ¶
54	0.391 31	0.149 38	0.687 246	0.048 231	0.027 198	0.076 190	0.095 225	0.013 155	0.386 356	0.124 132	Hourly Ordinates for 15 years beginning Mar. 3, 1879. §, ¶
55	0.048 114	0.010 300	0.672 88	.....	.....	.....	0.067 25	.....	0.124 256	0.111 76	Hourly Ordinates for 1 calendar year, 1888.*
56	0.064 39	0.039 265	1.498 83	0.088 83	.....	0.092 35	0.190 44	0.180 220	.....	.....	Hourly Ordinates for January, 1897.*
57	0.089 58	0.069 271	2.109 126	0.112 131	.....	0.157 71	0.403 69	0.554 92	0.239 192	0.062 129	Hourly Ordinates for 1 calendar year, 1896.**
58	0.072 60	0.086 278	2.470 139	0.129 128	.....	0.246 89	0.364 57	0.264 107	0.203 229	0.086 154	Hourly Ordinates for 2 calendar years, 1873 and 1875.**
59	0.089 103	0.030 344	2.886 333	0.184 323	.....	0.348 320	0.462 288	0.407 170	0.312 218	0.148 151	Hourly Ordinates for 1 calendar year, 1895.**
60	.....	.....	1.810 97	.....	.....	0.101 327	0.321 48	.....	.....	.....	Devised from British Tide Tables for 1894.
61	.....	.....	2.210 225	.....	.....	0.129 86	0.409 169	.....	.....	.....	Devised from British Tide Tables for 1894.
62	0.135 350	0.087 283	1.750 56	.....	.....	.....	0.203 340	.....	0.209 196	0.046 155	Hourly Ordinates for 1 year beginning Dec. 21, 1843.*
63	0.100 18	.....	1.640 110	.....	.....	0.340 159	0.465 43	.....	.....	.....	Inferred from constants for Sheerness and British Tide Tables for 1894.
64	0.050 21	.....	2.066 28	.....	.....	0.407 66	0.390 290	0.452 290	.....	.....	Hourly Ordinates for 3 calendar years, 1883, 1884, and 1885. §
65	0.108 106	0.032 292	1.074 239	.....	0.083 112	0.374 191	0.115 135	0.267 81	.....	.....	Hourly Ordinates for 4 years, 1851, 1857, 1866, and 1870. §
66	0.128 182	.....	3.161 6	0.235 227	0.228 330	0.255 34	0.529 286	0.406 258	0.401 250	0.161 201	Hourly Ordinates for 7 years, 1857–1860 and 1866–1870. §
67	0.063 137	0.040 327	1.036 42	.....	.....	0.100 49	0.210 301	.....	0.485 240	0.058 183	High and Low Waters for 1 calendar year, 1897.*
68	.....	.....	1.030 356	.....	.....	0.108 25	0.228 277	.....	.....	.....	Devised from British Tide Tables for 1894.
69	.....	.....	1.280 175	.....	.....	0.191 126	0.183 80	.....	.....	.....	Devised from British Tide Tables for 1894.
70	0.101 59	0.134 202	1.365 70	.....	.....	.....	.....	.....	.....	.....	From the German Tide Tables for 1903.

‡ Japanese Government.
§ Proc. Roy. Soc. 1885 and 1889.
‖ R. W. Chapman and Captain Inglis.
¶ Reports of the Survey of India.
** Ph. Hatt, Paris, France.
†† Proc. Roy. Soc. 1902.

Number.	Station.	January		February		March		April		May	
		1	16	1	16	1	16	1	16	1	16
		feet.	feet.	feet.	feet.	feet.	feet.	feet.	feet.	feet.	feet.
1	St. Johns, Newfoundland	+0.3	+0.3	+0.2	+0.1	0.0	0.0	−0.1	−0.2	−0.2	−0.2
2	Halifax, Nova Scotia	+0.1	0.0	−0.1	−0.2	−0.2	−0.1	−0.1	0.0	+0.1	+0.1
3	Eastport, Me	0.0	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	0.0	0.0
4	Portland, Me	0.0	−0.1	−0.1	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.1
5	Boston Mass	−0.1	−0.1	−0.2	−0.2	−0.1	−0.1	0.0	0.0	+0.1	+0.1
6	Newport, R I	0.0	−0.1	−0.1	−0.2	−0.2	−0.2	−0.2	−0.1	0.0	0.0
7	New London, Conn	−0.2	−0.3	−0.3	−0.3	−0.3	−0.3	−0.2	−0.1	0.0	+0.1
8	Willets Point, N. Y.	0.0	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	0.0	+0.1	+0.1
9	New York, N. Y	−0.2	−0.3	−0.4	−0.4	−0.3	−0.2	−0.1	0.0	+0.1	+0.2
10	Sandy Hook N. J	−0.3	−0.3	−0.3	−0.3	−0.2	−0.2	−0.1	0.0	0.0	+0.1
11	Philadelphia, Pa	−0.9	−0.9	−0.8	−0.6	−0.4	−0.1	+0.1	+0.3	+0.4	+0.4
12	Old Point Comfort Va	−0.2	−0.3	−0.3	−0.4	−0.4	−0.3	−0.2	−0.1	0.0	+0.1
13	Washington, D. C	−0.1	−0.2	−0.3	−0.4	−0.4	−0.4	−0.3	−0.1	0.0	+0.2
14	Baltimore, Md	−0.3	−0.3	−0.3	−0.3	−0.2	−0.1	0.0	0.0	+0.1	+0.1
15	Wilmington, N. C	−0.1	−0.2	−0.3	−0.3	−0.3	−0.3	−0.3	−0.2	−0.2	−0.1
16	Charleston, S. C	−0.1	−0.2	−0.3	−0.4	−0.4	−0.3	−0.2	−0.1	−0.1	−0.1
17	Savannah Entrance, Ga	−0.3	−0.3	−0.3	−0.2	−0.1	0.0	0.0	+0.1	+0.1	+0.1
18	Fernandina, Fla	+0.3	+0.2	+0.1	−0.2	−0.3	−0.5	−0.7	−0.7	−0.6	−0.5
19	Key West, Fla	+0.1	0.0	−0.1	−0.2	−0.3	−0.3	−0.3	−0.3	−0.3	−0.3
20	Galveston, Tex	−0.5	−0.6	−0.6	−0.6	−0.5	−0.3	−0.2	−0.1	−0.1	−0.1
21	Buenos Ayres, Argentina	+0.2	+0.3	+0.4	+0.5	+0.5	+0.5	+0.4	+0.2	0.0	−0.1
22	Cape Horn, South America										
23	Valparaiso, Chile	+0.1	+0.2	+0.2	+0.2	+0.2	+0.1	+0.1	0.0	0.0	0.0
24	Panama, Colombia	−0.2	−0.4	−0.7	−1.0	−1.1	−0.9	−0.6	−0.3	−0.1	+0.2
25	San Diego, Cal	0.0	0.0	0.0	−0.1	−0.1	−0.2	−0.2	−0.3	−0.3	−0.3
26	San Francisco Entrance Cal	+0.1	0.0	−0.1	−0.2	−0.4	−0.5	−0.5	−0.5	−0.4	−0.3
27	Astoria, Oreg	+0.4	+0.3	+0.2	0.0	−0.1	−0.1	−0.1	−0.1	0.0	+0.1
28	Port Townsend, Wash	+0.3	+0.3	+0.3	+0.2	−0.1	−0.2	−0.2	−0.2	−0.2	−0.2
29	Sitka, Alaska	+0.2	+0.2	+0.3	+0.3	+0.2	+0.1	+0.1	0.0	−0.1	−0.2
30	Kodiak (St. Paul), Alaska	0.0	−0.3	−0.5	−0.5	−0.5	−0.4	−0.4	−0.4	−0.5	−0.6
31	St. Michael, Alaska									−0.7	−0.5
32	Yokohama, Japan	0.0	0.0	−0.1	−0.2	−0.2	−0.3	−0.3	−0.3	−0.2	−0.1
33	Nagasaki, Japan										
34	Tientsin Entrance, China										
35	Shanghai, China	−1.6	−1.9	−2.0	−1.8	−1.5	−1.0	−0.5	−0.1	+0.4	+0.8
36	Amoy, China										
37	Hongkong, China	+0.2	+0.1	−0.1	−0.2	−0.2	−0.3	−0.3	−0.3	−0.2	−0.3
38	Singapore, Malay Peninsula	+0.4	+0.3	+0.2	0.0	−0.2	−0.3	−0.5	−0.6	−0.8	−0.5
39	Batavia, Java										
40	Manila, Pasig Riv. Entr., P. I.	−0.4	−0.5	−0.5	−0.5	−0.5	−0.4	−0.3	−0.2	−0.1	−0.1
41	Honolulu, Hawaiian Islands	−0.1	−0.1	−0.1	−0.2	−0.2	−0.1	−0.1	−0.1	−0.1	−0.2
42	Apia, Samoa Islands										
43	Wellington, New Zealand	0.0	0.0	0.0	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1
44	Port Russell, New Zealand										
45	Sydney, New South Wales	0.0	0.0	0.0	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1
46	Melbourne, Victoria										
47	Port Adelaide, South Australia	+0.1	0.0	−0.1	−0.3	−0.3	−0.2	−0.1	0.0	+0.1	+0.2
48	Rangoon, India	−0.8	−1.1	−1.2	−1.2	−1.2	−1.1	−1.0	−0.8	−0.6	−0.3
49	Calcutta, India	−1.8	−1.8	−1.8	−1.8	−1.8	−1.8	−1.9	−1.9	−1.8	−1.6
50	Madras, India	+0.3	+0.1	−0.2	−0.4	−0.5	−0.5	−0.5	−0.3	−0.2	−0.1
51	Colombo, Ceylon, India	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.1	−0.1
52	Bombay, India	+0.2	+0.2	+0.2	+0.2	+0.1	0.0	0.0	−0.1	−0.1	−0.1
53	Karachi, India	0.0	−0.1	−0.1	−0.2	−0.1	0.0	0.0	+0.1	+0.2	+0.2
54	Aden, Arabia	+0.1	+0.2	+0.2	+0.2	+0.3	+0.3	+0.3	+0.4	+0.4	+0.3
55	Cape Town, Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56	Lisbon, Portugal										
57	Rochelle, France	0.0	−0.1	−0.2	−0.2	−0.3	−0.3	−0.3	−0.2	−0.2	−0.1
58	Brest, France	+0.2	+0.1	0.0	−0.1	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2
59	Havre, France	+0.2	+0.1	−0.1	−0.2	−0.3	−0.4	−0.4	−0.3	−0.3	−0.2
60	Edinburgh (Leith), Scotland										
61	Hull, England										
62	Sheerness, England	0.0	0.0	−0.1	−0.1	−0.2	−0.2	−0.2	−0.2	−0.2	−0.1
63	London, England										
64	Dover, England										
65	Portland Breakwater, England										
66	Liverpool, England	+0.5	+0.5	+0.3	+0.1	0.0	−0.2	−0.3	−0.4	−0.4	−0.4
67	Greenock, Scotland	+0.4	+0.3	+0.2	0.0	−0.1	−0.3	−0.4	−0.4	−0.5	−0.5
68	Kingstown, Ireland										
69	Queenstown, Ireland										
70	Wilhelmshaven, Germany										

Number.	June		July		August		September		October		November		December	
	1	16	1	16	1	16	1	16	1	16	1	16	1	16
	feet.	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*	*feet.*
1	−0.2	−0.2	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	0.0	0.0	+0.1	+0.1	+0.2	+0.2
2	0.0	0.0	−0.1	−0.2	−0.3	−0.3	−0.2	−0.1	0.0	+0.2	+0.3	+0.3	+0.3	+0.2
3	0.0	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	0.0	0.0
4	−0.1	0.0	0.0	+0.1	+0.1	+0.2	+0.2	+0.2	+0.2	+0.2	+0.1	+0.1	0.0	0.0
5	+0.1	+0.1	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	+0.1	+0.1	0.0	0.0	−0.1
6	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	0.0
7	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.2	+0.2	+0.1	0.0	−0.1
8	+0.2	+0.2	+0.2	+0.2	+0.1	0.0	0.0	−0.1	−0.1	−0.1	−0.1	−0.1	0.0	0.0
9	+0.2	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.2	+0.1	+0.1	−0.1
10	+0.1	+0.1	+0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.3	+0.2	+0.2	+0.1	−0.1	−0.2
11	+0.3	+0.3	+0.3	+0.3	+0.3	+0.4	+0.5	+0.5	+0.5	+0.3	+0.1	−0.2	−0.5	−0.7
12	+0.3	+0.3	+0.4	+0.4	+0.3	+0.2	+0.2	+0.1	+0.1	0.0	0.0	0.0	−0.1	−0.2
13	+0.3	+0.4	+0.4	+0.3	+0.2	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	+0.1	+0.2	+0.2	+0.2	+0.2	+0.2	+0.3	+0.2	+0.2	+0.1	0.0	−0.1	−0.2	−0.2
15	−0.1	0.0	+0.1	+0.1	+0.2	+0.2	+0.3	+0.3	+0.3	+0.3	+0.2	+0.2	+0.1	0.0
16	−0.1	−0.1	−0.1	−0.1	−0.1	+0.1	+0.2	+0.3	+0.4	+0.4	+0.4	+0.3	+0.2	0.0
17	+0.1	+0.1	+0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.2	+0.1	0.0	−0.1	−0.2	−0.2
18	−0.2	0.0	+0.2	+0.4	+0.4	+0.4	+0.3	+0.2	+0.1	+0.1	+0.1	+0.2	+0.3	+0.3
19	−0.3	−0.2	−0.2	−0.1	−0.1	0.0	+0.1	+0.3	+0.4	+0.4	+0.4	+0.4	+0.3	+0.3
20	−0.1	−0.2	−0.1	0.0	+0.1	+0.3	+0.5	+0.7	+0.8	−0.8	+0.6	+0.4	+0.1	−0.2
21	−0.3	−0.4	−0.4	−0.4	−0.3	−0.3	−0.2	−0.2	−0.1	−0.1	−0.1	−0.1	0.0	+0.1
22														
23	0.0	0.0	0.0	0.0	0.0	−0.1	−0.2	−0.2	−0.2	−0.2	−0.2	−0.1	0.0	+0.1
24	+0.3	+0.3	+0.3	+0.2	+0.1	+0.1	+0.2	+0.4	+0.6	+0.8	+0.8	+0.8	+0.5	+0.2
25	−0.2	−0.1	0.0	+0.1	+0.2	+0.3	+0.3	+0.3	+0.2	+0.2	+0.1	+0.1	0.0	0.0
26	−0.1	+0.1	+0.2	+0.3	+0.4	+0.4	+0.4	+0.3	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2
27	+0.1	0.0	−0.1	−0.2	−0.3	−0.4	−0.4	−0.3	−0.2	−0.1	+0.2	+0.3	+0.4	+0.4
28	−0.2	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	0.0	+0.1	+0.2	+0.2	+0.3
29	−0.3	−0.3	−0.3	−0.3	−0.2	−0.2	−0.1	0.0	0.0	+0.1	+0.1	+0.1	+0.2	+0.2
30	−0.7	−0.8	−0.9	−0.7	−0.2	+0.2	+0.4	+0.8	+1.1	+1.2	+1.2	+1.1	+0.8	+0.4
31	−0.2	+0.1	+0.5	+0.7	+0.7	+0.6	+0.3	−0.1	−0.5					
32	−0.1	0.0	0.0	0.0	+0.1	+0.1	+0.2	+0.3	+0.3	+0.4	+0.4	+0.3	+0.3	+0.1
33														
34														
35	+1.0	+1.0	+1.1	+1.1	+1.1	+1.1	+1.1	+1.1	+1.0	+0.8	+0.4	0.0	−0.5	−1.1
36														
37	−0.3	−0.3	−0.4	−0.4	−0.3	−0.2	0.0	+0.2	+0.4	+0.5	+0.6	+0.6	+0.6	+0.4
38	−0.3	−0.1	+0.1	+0.3	+0.3	+0.3	+0.2	+0.1	+0.1	0.0	0.0	+0.1	+0.2	+0.3
39														
40	0.0	+0.1	+0.2	+0.2	+0.3	+0.4	+0.5	+0.5	+0.5	+0.4	+0.3	+0.2	0.0	−0.2
41	−0.2	−0.1	−0.1	0.0	0.0	+0.1	+0.2	+0.3	+0.3	+0.3	+0.3	+0.2	+0.1	0.0
42														
43	+0.1	+0.1	+0.1	0.0	0.0	−0.1	−0.1	−0.1	−0.1	−0.2	−0.2	−0.1	−0.1	−0.1
44														
45	+0.1	0.0	0.0	0.0	0.0	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	0.0	0.0
46														
47	+0.3	+0.4	+0.3	+0.3	+0.2	+0.1	0.0	0.0	−0.1	−0.1	−0.2	−0.2	−0.1	0.0
48	+0.1	+0.4	+0.8	+1.1	+1.3	+1.5	+1.5	+1.4	+1.2	+0.8	+0.5	+0.4	+0.3	+0.3
49	−0.8	−0.1	+0.9	+1.8	+2.8	+3.4	+3.6	+3.3	+2.7	+1.8	+0.9	−0.2	−0.9	−1.5
50	−0.1	0.0	−0.1	−0.1	−0.2	−0.2	−0.1	0.0	+0.2	+0.4	+0.6	+0.7	+0.7	+0.6
51	0.0	−0.1	−0.2	−0.3	−0.4	−0.4	−0.4	−0.3	−0.2	−0.1	+0.1	+0.2	+0.2	+0.2
52	0.0	0.0	0.0	0.0	0.0	−0.1	−0.1	−0.2	−0.2	−0.2	−0.1	0.0	+0.1	+0.2
53	+0.3	+0.3	+0.2	+0.1	0.0	−0.1	−0.1	−0.2	−0.1	−0.1	−0.1	0.0	0.0	0.0
54	+0.2	+0.1	0.0	−0.1	−0.3	−0.4	−0.5	−0.5	−0.5	−0.3	−0.2	−0.1	0.0	0.0
55	−0.1	−0.1	−0.2	−0.2	−0.2	−0.2	−0.1	0.0	+0.1	+0.2	+0.2	+0.2	+0.2	+0.1
56														
57	−0.1	0.0	0.0	0.0	+0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.3	+0.2	+0.2	+0.1
58	+0.1	−0.1	−0.1	−0.1	−0.1	0.0	0.0	0.0	+0.1	+0.2	+0.2	+0.3	+0.3	+0.3
59	−0.1	−0.1	−0.1	0.0	0.0	0.0	0.0	+0.1	+0.2	+0.3	+0.4	+0.4	+0.4	+0.4
60														
61														
62	−0.1	0.0	0.0	0.0	+0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.1
63														
64														
65														
66	−0.4	−0.3	−0.2	−0.2	−0.1	−0.1	−0.1	0.0	0.0	+0.1	+0.2	+0.4	+0.5	+0.5
67	−0.4	−0.4	−0.3	−0.2	−0.2	−0.1	0.0	+0.1	+0.3	+0.3	+0.4	+0.5	+0.5	+0.5
68														
69														
70														

Greenwich Mean Civil Time of the Moon's Upper and Lower Transits, and the Equation of Time.

Day of month.	January.			February.			March.			April.			May.			June.		
	Transit.			Transit.			Transit.			Transit.			Transit.			Transit.		
	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.
	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.
1	(10 17) 22 47	2.4	+ 3.2	(11 58)	2.5	+13.6	(11 35)	2.4	+12.6	0 32 (12 59)	2.3	+4.0	0 59 (13 26)	2.2	−3.0	2 18 (14 43)	2.1	−2.4
2	(11 17) 23 48	2.5	+ 3.7	0 28 (12 58)	2.5	+13.8	0 04 (12 32)	2.4	+12.4	1 26 (13 53)	2.2	+3.7	1 52 (14 19	2.2	−3.1	3 07 (15 31)	2.0	−2.3
3	..... (12 18)	2.5	+ 4.1	1 27 (13 55)	2.4	+13.9	1 00 (13 28)	2.3	+12.2	2 20 (14 47)	2.2	+3.4	2 46 (15 12)	2.2	−3.2	3 55 (16 18)	1.9	−2.1
4	0 49 (13 19)	2.5	+ 4.6	2 23 (14 50)	2.3	+14.0	1 55 (14 22)	2.3	+11.9	3 13 (15 40)	2.2	+3.1	3 37 (16 03)	2.1	−3.3	4 40 (17 03)	1.9	−2.0
5	1 49 (14 18)	2.5	+ 5.0	3 17 (15 43)	2.2	+14.1	2 48 (15 15)	2.2	+11.7	4 06 (16 32)	2.2	+2.8	4 27 (16 52)	2.0	−3.4	5 24 (17 46)	1.8	−1.8
6	2 47 (15 15)	2.4	+ 5.5	4 09 (16 35)	2.2	+14.2	3 41 (16 08)	2.2	+11.5	4 57 (17 22)	2.1	+2.5	5 15 (17 39)	2.0	−3.5	6 07 (18 29)	1.8	−1.6
7	3 42 (16 09)	2.2	+ 5.9	5 00 (17 26)	2.1	+14.3	4 34 (16 59)	2.2	+11.2	5 47 (18 11)	2.0	+2.2	6 02 (18 24)	1.9	−3.6	6 50 (19 12)	1.8	−1.4
8	4 35 (17 01)	2.2	+ 6.4	5 51 (18 16)	2.1	+14.3	5 25 (17 50)	2.1	+11.0	6 35 (18 59)	2.0	+2.0	6 46 (19 08)	1.8	−3.6	7 33 (19 55)	1.8	−1.3
9	5 26 (17 51)	2.1	+ 6.8	6 41 (19 06)	2.1	+14.4	6 15 (18 40)	2.1	+10.7	7 22 (19 44)	1.9	+1.7	7 29 (19 51)	1.8	−3.7	8 18 (20 40)	1.9	−1.1
10	6 16 (18 40)	2.1	+ 7.2	7 31 (19 56)	2.1	+14.4	7 05 (19 29)	2.0	+10.5	8 07 (20 29)	1.8	+1.4	8 12 (20 34)	1.8	−3.7	9 04 (21 28)	2.0	−0.9
11	7 05 (19 30)	2.1	+ 7.6	8 20 (20 45)	2.0	+14.4	7 53 (20 17)	2.0	+10.2	8 51 (21 12)	1.8	+1.1	8 55 (21 17)	1.8	−3.8	9 53 (22 18)	2.1	−0.7
12	7 54 (20 19)	2.1	+ 8.0	9 09 (21 33)	2.0	+14.4	8 40 (21 03)	1.9	+10.0	9 34 (21 55)	1.8	+0.9	9 39 (22 02)	1.9	−3.8	10 45 (23 12)	2.2	−0.5
13	8 44 (21 09)	2.1	+ 8.4	9 56 (22 20)	2.0	+14.4	9 26 (21 48)	1.9	+ 9.7	10 17 (22 39)	1.8	+0.6	10 25 (22 48)	1.9	−3.8	11 40	2.3	−0.3
14	9 34 (21 58)	2.1	+ 8.8	10 43 (23 06)	1.9	+14.4	10 10 (22 32)	1.8	+ 9.4	11 00 (23 23)	1.8	+0.4	11 13 (23 37)	2.0	−3.8	(0 08) 12 36	2.4	−0.1
15	10 23 (22 47)	2.0	+ 9.2	11 28 (23 51)	1.9	+14.4	10 54 (23 16)	1.8	+ 9.1	11 45	1.9	+0.1	..... 12 03	2.1	−3.8	(1 06) 13 35	2.4	+0.2
16	11 12 (23 36)	2.0	+ 9.5	..... 12 13	1.8	+14.3	11 37 (23 58)	1.8	+ 8.8	(0 08) 12 31	1.9	−0.1	(0 29) 12 56	2.2	−3.8	(2 04) 14 33	2.4	+0.4
17	11 59	2.0	+ 9.9	(0 34) 12 56	1.8	+ 4.3	..... 12 20	1.8	+ 8.6	(0 55) 13 19	2.0	−0.4	(1 23) 13 50	2.3	−3.8	(3 01) 15 29	2.4	+0.6
18	(0 23) 12 46	1.9	+10.2	(1 17) 13 39	1.8	+14.2	(0 42) 13 04	1.8	+ 8.3	(1 44) 14 10	2.1	−0.6	(2 18) 14 47	2.3	−3.7	(3 57) 16 24	2.3	+0.8
19	(1 08) 13 31	1.9	+10.6	(2 00) 14 22	1.8	+14.1	(1 26) 13 48	1.9	+ 8.0	(2 36) 15 02	2.2	−0.8	(3 15) 15 43	2.4	−3.7	(4 51) 17 17	2.2	+1.0
20	(1 53) 14 14	1.8	+10.9	(2 43) 15 05	.8	+14.0	(2 11) 14 34	1.9	+ 7.7	(3 29) 15 56	2.3	−1.0	(4 12) 16 39	2.3	−3.7	(5 43) 18 09	2.2	+1.2
21	(2 36) 14 57	1.8	+11.2	(3 27) 15 50	1.9	+13.9	(2 58) 15 22	2.0	+ 7.4	(4 24) 16 52	2.3	−1.3	(5 07) 17 34	2.3	−3.6	(6 35) 19 00	2.1	+1.5
22	(3 19) 15 40	1.8	+11.5	(4 13) 16 36	1.9	+13.8	(3 47) 16 13	2.1	+ 7.1	(5 20) 17 48	2.3	−1.5	(6 01) 18 28	2.2	−3.5	(7 25) 19 51	2.1	+1.7
23	(4 01) 16 23	1.8	+11.7	(5 00) 17 25	2.0	+13.7	(4 39) 17 06	2.2	+ 6.8	(6 15) 18 43	2.3	−1.7	(6 54) 19 20	2.2	−3.5	(8 16) 20 42	2.1	+1.9
24	(4 45) 17 07	1.8	+12.0	(5 51) 18 17	2.2	+13.6	(5 33) 18 00	2.3	+ 6.5	(7 10) 19 38	2.3	−1.8	(7 46) 20 12	2.2	−3.4	(9 08) 21 34	2.2	+2.1
25	(5 30) 17 53	1.9	+12.3	(6 44) 19 12	2.3	+13.4	(6 28) 18 56	2.3	+ 6.2	(8 05) 20 32	2.2	−2.0	(8 37) 21 03	2.2	−3.3	(10 00) 22 26	2.2	+2.3
26	(6 16) 18 41	2.0	+12.5	(7 40) 20 09	2.4	+13.3	(7 25) 19 54	2.4	+ 5.9	(8 58) 21 25	2.2	−2.2	(9 29) 21 55	2.2	−3.2	(10 52) 23 18	2.2	+2 5
27	(7 07) 19 33	2.2	+12.7	(8 38) 21 08	2.4	+13.1	(8 22) 20 50	2.4	+ 5.6	(9 52) 22 18	2.2	−2.4	(10 21) 22 48	2.2	−3.1	(11 44)	2.1	+2.7
28	(8 00) 20 28	2.3	+12.9	(9 38) 22 07	2.5	+12.9	(9 19) 21 47	2.3	+ 5.2	(10 45) 23 11	2.2	−2.5	(11 14) 23 41	2.2	−3.0	0 10 (12 35)	2.1	+2.9
29	(8 57) 21 26	2.4	+13.1	(10 37) 23 06	2.4	+12.8	(10 15) 22 42	2.3	+ 4.9	(11 38)	2.2	−2.7	..... (12 07)	2.2	−2.9	1 00 (13 24)	2.1	+3.1
30	(9 56) 22 27	2.5	+13.3				(11 10) 23 38	2.3	+ 4.6	0 05 (12 32)	2.2	−2.8	0 34 (13 00)	2.2	−2.7	1 48 (14 12)	2.0	+3.3
31	(10 58) 23 28	2.5	+13.5				..... (12 05)	2.3	+ 4.3				1 26 (13 52)	2.2	−2.6			

The lower transits are inclosed in parentheses. In Table 6, 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m.

To adapt this table to the local time of another meridian, add the tabular hourly difference for each hour or 15° of west longitude, and subtract the same for east longitude.

The equation of time is for Greenwich apparent noon, and is such that when applied according to sign to apparent time the result is mean time. See explanation of tables, p. 28.

Greenwich Mean Civil Time of the Moon's Upper and Lower Transits, and the Equation of Time.

Day of month.	July.			August.			September.			October.			November.			December.		
	Transit.			Transit.			Transit.			Transit.			Transit.			Transit.		
	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.	Meridian of Greenwich.	Diff. for 1 hr. of longitude.	Equation of time.
	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.	h. m.	m.	m.
1	2 35 (14 58)	1.9	+3.5	3 25 (15 46)	1.8	+6.1	4 18 (16 42)	1.9	0.0	4 43 (17 09)	2.2	−10.3	6 15 (18 42)	2.3	−16.3	6 50 (19 16)	2.2	−10.9
2	3 20 (15 42)	1.8	+3.7	4 08 (16 29)	1.8	+6.1	5 06 (17 31)	2.0	−0.3	5 36 (18 03)	2.2	−10.6	7 09 (19 36)	2.2	−16.4	7 42 (20 08)	2.2	−10.6
3	4 03 (16 24)	1.8	+3.9	4 51 (17 13)	1.8	+6.0	5 56 (18 22)	2.2	−0.7	6 31 (18 59)	2.3	−10.9	8 03 (20 30)	2.2	−16.4	8 34 (21 01)	2.2	−10.2
4	4 46 (17 07)	1.8	+4.1	5 36 (17 59)	1.9	+5.9	6 49 (19 17)	2.3	−1.0	7 27 (19 55)	2.3	−11.2	8 56 (21 23)	2.2	−16.3	9 28 (21 54)	2.2	− 9.8
5	5 28 (17 50)	1.8	+4.3	6 23 (18 48)	2.0	+5.8	7 45 (20 13)	2.4	−1.3	8 23 (20 51)	2.3	−11.5	9 50 (22 17)	2.3	−16.3	10 22 (22 49)	2.3	− 9.4
6	6 11 (18 33)	1.8	+4.4	7 13 (19 39)	2.2	+5.7	8 42 (21 11)	2.4	−1.6	9 19 (21 47)	2.3	−11.8	10 45 (23 12)	2.3	−16.3	11 17 (23 45)	2.3	− 8.9
7	6 56 (19 19)	1.9	+4.6	8 06 (20 34)	2.3	+5.6	9 40 (22 10)	2.4	−2.0	10 15 (22 43)	2.3	−12.1	11 40	2.3	−16.2	..... 12 12	2.3	− 8.5
8	7 43 (20 07)	2.0	+4.8	9 02 (21 31)	2.4	+5.5	10 39 (23 08)	2.4	−2.3	11 10 (23 38)	2.3	−12.4	(0 08) 12 36	2.3	−16.2	(0 40) 13 08	2.3	− 8.1
9	8 32 (20 58)	2.1	+4.9	10 01 (22 30)	2.5	+5.4	11 36	2.4	−2.6	..... 12 06	2.3	−12.6	(1 04) 13 32	2.3	−16.1	(1 34) 14 01	2.2	− 7.6
10	9 25 (21 53)	2.3	+5.1	11 00 (23 30)	2.5	+5.2	(0 05) 12 33	2.4	−3.0	(0 34) 13 02	2.3	−12.9	(2 00) 14 28	2.3	−16.0	(2 27) 14 52	2.1	− 7.2
11	10 21 (22 50)	2.4	+5.2	11 59	2.4	+5.1	(1 01) 13 28	2.3	−3.3	(1 30) 13 57	2.3	−13.2	(2 55) 15 21	2.2	−15.9	(3 17) 15 41	2.0	− 6.7
12	11 20 (23 49)	2.5	+5.3	(0 29) 12 57	2.4	+4.9	(1 56) 14 23	2.3	−3.7	(2 25) 14 53	2.3	−13.4	(3 47) 16 13	2.2	−15.8	(4 04) 16 27	1.9	− 6.3
13	..... 12 19	2.5	+5.5	(1 26) 13 54	2.3	+4.7	(2 50) 15 18	2.3	−4.0	(3 20) 15 47	2.3	−13.7	(4 38) 17 02	2.0	−15.6	(4 49) 17 11	1.8	− 5.8
14	(0 49) 13 18	2.4	+5.6	(2 21) 14 49	2.3	+4.6	(3 45) 16 12	2.2	−4.4	(4 14) 16 41	2.2	−13.9	(5 26) 17 48	1.9	−15.5	(5 33) 17 54	1.8	− 5.3
15	(1 47) 14 16	2.4	+5.7	(3 15) 15 42	2.2	+4.4	(4 38) 17 05	2.2	−4.7	(5 06) 17 32	2.1	−14.1	(6 11) 18 33	1.9	−15.3	(6 15) 18 36	1.8	− 4.8
16	(2 44) 15 11	2.3	+5.8	(4 08) 16 35	2.2	+4.2	(5 31) 17 57	2.2	−5.1	(5 57) 18 21	2.0	−14.3	(6 55) 19 16	1.8	−15.2	(6 57) 19 19	1.8	− 4.3
17	(3 38) 16 05	2.2	+5.9	(5 01) 17 27	2.2	+4.0	(6 23) 18 48	2.1	−5.4	(6 45) 19 08	2.0	−14.5	(7 38) 19 59	1.8	−15.0	(7 40) 20 02	1.8	− 3.9
18	(4 31) 16 57	2.2	+6.0	(5 53) 18 19	2.2	+3.8	(7 13) 19 38	2.1	−5.8	(7 31) 19 53	1.9	−14.7	(8 20) 20 41	1.8	−14.8	(8 24) 20 47	1.9	− 3.4
19	(5 23) 17 48	2.1	+6.0	(6 45) 19 11	2.2	+3.5	(8 02) 20 25	2.0	−6.2	(8 15) 20 37	1.8	−14.9	(9 03) 21 24	1.8	−14.6	(9 10) 21 34	2.0	− 2.9
20	(6 14) 18 40	2.1	+6.1	(7 36) 20 02	2.1	+3.3	(8 49) 21 12	1.9	−6.5	(8 59) 21 20	1.8	−15.1	(9 46) 22 09	1.9	−14.3	(9 59) 22 25	2.1	− 2.4
21	(7 05) 19 31	2.1	+6.2	(8 27) 20 52	2.1	+3.1	(9 34) 21 56	1.9	−6.9	(9 41) 22 02	1.8	−15.3	(10 32) 22 55	1.9	−14.1	(10 51) 23 18	2.2	− 1.9
22	(7 56) 20 22	2.1	+6.2	(9 16) 21 40	2.0	+2.8	(10 18) 22 40	1.8	−7.2	(10 24) 22 45	1.8	−15.4	(11 19) 23 44	2.0	−13.8	(11 45)	2.3	− 1.4
23	(8 48) 21 14	2.1	+6.3	(10 04) 22 28	2.0	+2.6	(11 01) 23 22	1.8	−7.6	(11 07) 23 29	1.8	−15.6	..... (12 09)	2.1	−13.6	0 12 (12 41)	2.3	− 0.9
24	(9 39) 22 05	2.1	+6.3	(10 51) 23 14	1.9	+2.3	(11 43)	1.8	−7.9	(11 51)	1.9	−15.7	0 34 (13 01)	2.2	−13.3	1 09 (13 37)	2.4	− 0.4
25	(10 30) 22 55	2.1	+6.3	(11 36) 23 58	1.8	+2.0	0 05 (12 26)	1.8	−8.3	0 14 (12 37)	1.9	−15.8	1 28 (13 54)	2.2	−13.0	2 05 (14 33)	2.3	+ 0.1
26	(11 19) 23 44	2.0	+6.3	..... (12 20)	1.8	+1.8	0 47 (13 09)	1.8	−8.6	1 00 (13 24)	2.0	−15.9	2 22 (14 49)	2.3	−12.7	3 01 (15 28)	2.3	+ 0.6
27	..... (12 07)	2.0	+6.3	0 41 (13 02)	1.8	+1.5	1 31 (13 53)	1.8	−8.9	1 49 (14 14)	2.1	−16.0	3 17 (15 44)	2.3	−12.3	3 55 (16 22)	2.2	+ 1.1
28	0 31 (12 54)	1.9	+6.3	1 24 (13 45)	1.8	+1.2	2 16 (14 39)	1.9	−9.3	2 40 (15 06)	2.2	−16.1	4 11 (16 38)	2.3	−12.0	4 48 (17 14)	2.2	+ 1.6
29	1 16 (13 38)	1.9	+6.3	2 06 (14 27)	1.8	+0.9	3 03 (15 27)	2.0	−9.6	3 32 (15 59)	2.2	−16.2	5 05 (17 32)	2.2	−11.7	5 40 (18 05)	2.2	+ 2.1
30	2 00 (14 22)	1.8	+6.2	2 49 (15 10)	1.8	+0.6	3 52 (16 17)	2.1	−9.9	4 26 (16 53)	2.2	−16.3	5 58 (18 24)	2.2	−11.3	6 31 (18 57)	2.1	+ 2.6
31	2 43 (15 04)	1.8	+6.2	3 32 (15 55)	1.9	+0.3				5 20 (17 48)	2.3	−16.3				7 22 (19 48)	2.2	+ 3.1

The lower transits are inclosed in parentheses. In Table 6, 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m.

To adapt this table to the local time of another meridian, add the tabular hourly difference for each hour or 15° of west longitude, and subtract the same for east longitude.

The equation of time is for Greenwich apparent noon, and is such that when applied according to sign to apparent time the result is mean time. See explanation of tables, p. 28.

Greenwich Mean Civil Time of the Moon's Phases, Apogee and Perigee.

Moon's phases.												Moon in—					
● New Moon.				☽ First Quarter.				○ Full Moon.				☾ Last Quarter.				Apogee.			Perigee.		
mo.	*d.*	*h.*	*m.*	*mo.*	*d.*	*h.*	*m.*	*mo.*	*d.*	*h.*	*m.*	*mo.*	*d.*	*h.*	*m.*	*mo.*	*d.*	*h.*	*mo.*	*d.*	*h.*
.	.	.	.	.	.	.	.	Jan.	3	05	47	Jan.	9	21	10	.	.	.	Jan.	4	12.5
Jan.	17	15	47	Jan.	25	20	41	Feb.	1	16	33	Feb.	8	09	56	Jan.	19	23.0	Feb.	2	0.1
Feb.	16	11	05	Feb.	24	11	09	Mar.	2	02	48	Mar.	9	01	01	Feb.	16	0.4	Mar.	1	12.9
Mar.	17	05	39	Mar.	24	21	37	Mar.	31	12	44	Apr.	7	17	53	Mar.	14	6.0	Mar.	29	21.7
Apr.	15	21	53	Apr.	23	04	55	Apr.	29	22	36	May	7	11	50	Apr.	10	21.5	Apr.	26	18.6
May	15	10	58	May	22	10	19	May	29	08	55	June	6	05	53	May	8	16.3	May	22	22.5
June	13	21	10	June	20	15	11	June	27	20	23	July	5	22	54	June	5	11.4	June	17	12.5
July	13	05	27	July	19	20	49	July	27	09	42	Aug.	4	14	03	July	3	5.4	July	15	4.2
Aug.	11	12	58	Aug.	18	04	27	Aug.	26	01	02	Sept.	3	02	58	July	30	20.1	Aug.	12	9.3
Sept.	9	20	43	Sept.	16	15	13	Sept.	24	17	50	Oct.	2	13	52	Aug.	27	4.2	Sept.	9	19.2
Oct.	9	05	25	Oct.	16	05	54	Oct.	24	10	56	Oct.	31	23	13	Sept.	23	6.0	Oct.	8	6.1
Nov.	7	15	37	Nov.	15	00	36	Nov.	23	03	12	Nov.	30	07	38	Oct.	20	14.1	Nov.	5	12.3
Dec.	7	03	46	Dec.	14	22	07	Dec.	22	18	01	Dec.	29	15	46	Nov.	17	6.9	Dec.	3	0.3
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Dec.	15	3.6	Dec.	27	16.7

In the above table 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m.

This table may be adapted to any other meridian than Greenwich by adding the longitude in time when it is east, and subtracting it when west.

TABLE 8.—MOON'S DECLINATION, 1904.

Greenwich Mean Civil Time of the Moon's greatest Declination North and South and Passage over the Equator.

Moon on Equator.				Moon Farthest North.						Moon on Equator.				Moon Farthest South.					
Time.				Time.				Declination.		Time.				Time.				Declination.	
mo.	*d.*	*h.*	*m.*	*mo.*	*d.*	*h.*	*m.*	°	′	*mo.*	*d.*	*h.*	*m.*	*mo.*	*d.*	*h.*	*m.*	°	′
.	.	.	.	Jan.	2	10	52	18	26	Jan.	8	13	09	Jan.	15	11	58	18	25
Jan.	23	01	41	Jan.	29	23	05	18	20	Feb.	4	22	47	Feb.	11	18	40	18	16
Feb.	19	08	28	Feb.	26	09	07	18	12	Mar.	3	09	58	Mar.	10	01	24	18	10
Mar.	17	14	34	Mar.	24	16	11	18	10	Mar.	30	21	00	Apr.	6	09	23	18	11
Apr.	13	21	26	Apr.	20	21	49	18	15	Apr.	27	06	24	May	3	18	47	18	19
May	11	05	47	May	18	04	27	18	24	May	24	13	55	May	31	04	40	18	27
June	7	15	13	June	14	13	18	18	29	June	20	20	29	June	27	13	45	18	30
July	5	00	36	July	11	23	58	18	28	July	18	03	36	July	24	21	19	18	26
Aug.	1	08	50	Aug.	8	10	53	18	22	Aug.	14	12	18	Aug.	21	03	35	18	19
Aug.	28	15	34	Sept.	4	20	23	18	17	Sept.	10	22	38	Sept.	17	09	49	18	17
Sept.	24	21	32	Oct.	2	03	40	18	19	Oct.	8	09	38	Oct.	14	17	33	18	22
Oct.	22	04	08	Oct.	29	09	34	18	28	Nov.	4	19	49	Nov.	11	03	24	18	33
Nov.	18	12	21	Nov.	25	16	15	18	39	Dec.	2	04	04	Dec.	8	14	18	18	42
Dec.	15	21	56	Dec.	23	01	13	18	43	Dec.	29	10	47	.	.	.	.	.	.

In the above table 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m.

This table may be adapted to any other meridian than Greenwich by adding the longitude in time when it is east, and subtracting it when west.

TABLE 9.—CURRENT TABLES FOR PORTIONS OF THE ATLANTIC AND PACIFIC COASTS OF THE UNITED STATES.

In the current tables for the Atlantic Coast the directions are given on the upper line and the velocities in knots, to tenths of a knot, on the lower line for each station. The bearings and directions are all true, that is, not magnetic; and all distances are in nautical miles. The current tables for the Pacific Coast consist of brief directions for obtaining the time of slack water at nine stations in the Strait of Georgia and of the predicted time of all slacks during the year 1904 for Seymour Narrows, B. C., and Sergius Narrows, Alaska. Currents are so greatly modified by local conditions that these tables only apply to the particular places named, and the mariner's experience must be relied upon in estimating for stations in the vicinity of those given. For examples of the use of Table 9 see pages 35 to 37.

HIGH WATER.							LOW WATER.						
Hours before.			Hours after.				Hours before.			Hours after.			
3	2	1	0	1	2	3	3	2	1	0	1	2	3
Current stations in Portsmouth Harbor, referred to time of tide at Portland, Maine. See pp. 59–62.													
Station (1) Outer entrance to harbor, 0.3 mile S. 77° W. from Whaleback Light.													
N 5° W	N 4° W	N 3° W	N 2° W	N 1° W	N	S 12° W	S 12° W	S 14° W	S 15° W	S 16° W	S 17° W	S 18° W	N 5° W
0.2	0.8	1.0	0.8	0.5	0.1	0.4	0.7	1.4	1.4	1.1	0.8	0.4	0.1
Station (2) In mid-channel 0.2 mile S. 78° E. from Portsmouth Harbor Light.													
N 28° W	N 20° W	N 12° W	N 6° W	N 2° W	N 7° W	S	S 2° E	S 11° E	S 18° E	S 17° E	S 7° W	S 3° W	N 32° W
0.3	0.8	1.1	1.1	0.8	0.1	0.5	0.7	1.3	1.4	1.1	0.7	0.1	0.2
Station (3) In mid-channel 0.3 mile N. 5° W. from Portsmouth Harbor Light.													
W	N 79° W	N 63° W	N 53° W	N 45° W	. . .	S 72° E	S 70° E	S 65° E	S 66° E	S 74° E	S 85° E	N 83° E	S 87° W
0.6	1.5	1.9	1.7	1.0	0.0	1.1	1.3	2.2	2.7	2.4	1.4	0.6	0.3
Station (4) About 0.4 mile N. 25° W. from Portsmouth Harbor Light.													
S 71° W	S 77° W	S 83° W	S 89° W	N 86° W	N 80° W	N 55° E	N 57° E	N 64° E	N 69° E	N 69° E	N 65° E	N 58° E	S 70° W
0.6	1.4	1.6	1.4	1.0	0.4	0.2	0.3	0.6	0.9	1.1	1.1	0.6	0.2
Station (5) In mid-channel south from Clark Island.													
S 88° W	S 86° W	S 84° W	S 83° W	S 81° W	S 79° W	N 81° E	N 82° E	N 84° E	N 84° E	N 83° E	N 79° E	N 73° E	S 89° W
1.0	1.7	1.7	1.4	1.0	0.4	0.7	1.1	2.4	2.3	1.7	1.0	0.4	0.6
Station (6) In mid-channel off Goat Island Ledge buoy.													
S 88° W	S 87° W	S 86° W	S 85° W	S 84° W	S 83° W	N 88° E	N 88° E	N 87° E	N 86° E	N 85° E	N 84° E	N 83° E	S 88° W
1.3	2.0	2.0	1.5	1.0	0.4	0.7	1.1	2.2	2.4	1.9	1.1	0.3	1.0
Station (7) About 0.2 mile south from Portsmouth Navy-Yard.													
N 43° W	N 45° W	N 48° W	N 55° W	N 52° W	N 55° W	S 55° E	S 54° E	S 49° E	S 45° E	S 43° E	S 44° E	S 45° E	N 42° W
1.8	2.9	3.1	2.9	2.0	0.9	0.5	0.9	1.9	2.8	2.6	1.8	0.6	1.5

HIGH WATER.							LOW WATER.						
Hours before.			Hours after.				Hours before.			Hours after.			
3	2	1	0	1	2	3	3	2	1	0	1	2	3
Current stations in Boston Harbor, referred to time of tide at Boston, Mass. See pp. 63–66.													
Station (1)			South Channel, 1.2 miles N. 85° E. from Deer Island Light.										
S 75° W	S 76° W	S 76° W	S 77° W	N 59° E	N 61° E	N 63° E	N 63° E	N 64° E	N 64° E	N 65° E	S 70° W	S 75° W	S 75° W
1.5	1.3	0.9	0.1	0.8	1.5	1.8	1.8	1.8	1.4	0.1	0.9	1.4	1.5
Station (2)			North Channel, 1.5 miles N. 68° E. from Deer Island Light.										
S 37° W	S 42° W	S 46° W	S 50° W	N 57° E	N 49° E	N 47° E	N 47° E	N 52° E	N 63° E	N 81° E	S 30° W	S 33° W	S 36° W
0.9	0.8	0.6	0.3	0.4	0.7	0.9	0.9	0.8	0.5	0.1	0.5	0.7	0.9
Station (3)			Broad Sound, 1.0 mile N. 57° W. from Green Island.										
S 49° W	S 57° W	S 64° W	S 72° W	N 5° E	N 15° E	N 19° E	N 19° E	N 15° E	N 5° E	S 24° W	S 32° W	S 40° W	S 48° W
0.8	0.6	0.3	0.1	0.4	0.6	0.5	0.5	0.3	0.1	0.4	0.6	0.8	0.9
Station (4)			Broad Sound, 0.8 mile S. 71° E. from Winthrop Head.										
S 26° W	S 33° W	S 42° W	N 8° E	N 22° E	N 31° E	N 49° E	N 41° E	N 48° E	N 58° E	S 43° W	S 29° W	S 20° W	S 22° W
0.7	0.4	0.1	0.1	0.3	0.4	0.5	0.5	0.4	0.2	0.1	0.4	0.6	0.7
Station (5)			Broad Sound, 1.5 miles N. 60° E. from Winthrop Head.										
S 13° W	S 10° W	S 3° E	. . .	S 70° E	S 86° E	N 80° E	N 78° E	N 72° E	S 82° E	S 16° E	S 4° E	S 6° W	S 13° W
0.4	0.4	0.3	0.0	0.2	0.3	0.4	0.4	0.2	0.1	0.1	0.2	0.3	0.4
Station (6)			Broad Sound, near Lynn Harbor, 0.4 mile N. 86° W. from Bass Point.										
N 31° W	N 22° W	N 9° W	S 74° E	S 74° E	S 69° E	S 60° E	S 58° E	S 51° E	S 42° E	N 66° W	N 56° W	N 43° W	N 33° W
0.4	0.3	0.1	0.1	0.2	0.3	0.4	0.4	0.3	0.1	0.2	0.4	0.5	0.4
Station (7)			Broad Sound, 0.5 mile S. 27° E. from East Point, Nahant.										
S 87° W	S 88° W	S 85° W	N 75° E	N 69° E	N 58° E	N 53° E	N 53° E	N 53° E	N 68° E	S 67° W	S 72° W	S 81° W	S 85° W
0.3	0.2	0.1	0.1	0.2	0.4	0.4	0.4	0.3	0.1	0.2	0.4	0.4	0.3
Station (8)			Broad Sound, 1.2 miles N. 27° W. from The Graves.										
S 73° W	S 64° W	S 16° W	N 89° E	N 76° E	N 66° E	N 63° E	N 62° E	N 63° E	N 67° E	N 89° E	S 60° W	S 69° W	S 73° W
0.4	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.1	0.2	0.3	0.4
Station (9)			Broad Sound, 0.2 mile N. 15° E. from Green Island.										
S 85° W	S 77° W	S 65° W	S 76° E	S 88° E	N 81° E	N 69° E	N 65° E	N 50° E	N 33° E	N 89° W	N 88° W	W	S 86° W
0.7	0.6	0.2	0.2	0.5	0.8	0.8	0.7	0.5	0.1	0.1	0.4	0.6	0.7
Station (10)			Hypocrite Channel, 0.6 mile N. from east end of Outer Brewster.										
S 39° W	S 42° W	S 45° W	N 60° E	N 59° E	N 59° E	N 60° E	N 60° E	N 62° E	N 65° E	S 60° W	S 55° W	S 43° W	S 39° W
1.1	0.8	0.4	0.1	0.6	1.0	1.1	1.1	0.8	0.3	0.1	0.6	1.0	1.1
Station (11)			Hypocrite Channel, 0.6 mile N. 35° E. from east end of Outer Brewster.										
S 48° W	S 52° W	S 56° W	S 78° E	S 72° E	S 68° E	S 65° E	S 65° E	S 67° E	S 70° E	S 73° E	S 26° W	S 38° W	S 46° W
0.4	0.4	0.2	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.1	0.2	0.4	0.4

HIGH WATER.							LOW WATER.						
Hours before.			Hours after.				Hours before.			Hours after.			
3	2	1	0	1	2	3	3	2	1	0	1	2	3
Current stations in Boston Harbor, referred to time of tide at Boston, Mass.—Continued.													
Station (12) Hypocrite Channel, 0.2 mile W. from west end of Outer Brewster.													
S 67° W	S 82° W	N 83° W	N 80° E	N 26° E	N 9° W	N 18° W	N 20° W	N 21° W	. . .	N 76° W	S 72° W	S 61° W	S 63° W
0.5	0.3	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.0	0.3	0.4	0.5	0.5
Station (13) Hypocrite Channel, 0.1 mile N. 30° W. from Little Calf Island.													
S 78° W	S 82° W	S 86° W	N 52° E	N 58° E	N 61° E	N 60° E	N 59° E	N 52° E	N 41° E	S 66° W	S 70° W	S 73° W	S 77° W
0.9	0.7	0.4	0.4	1.0	1.2	1.1	1.0	0.7	0.3	0.1	0.7	0.9	0.9
Station (14) Hypocrite Channel, 0.2 mile W. from north end of Calf Island.													
S 32° W	S 28° W	S 24° W	N 38° E	N 29° E	N 26° E	N 28° E	N 29° E	N 36° E	N 40° E	S 57° W	S 48° W	S 40° W	S 33° W
0.9	0.8	0.5	0.1	0.5	0.6	0.6	0.6	0.5	0.3	0.2	0.7	0.9	0.9
Station (15) Midway between Calf and Great Brewster Islands.													
S 63° W	S 66° W	S 73° W	N 76° E	N 74° E	N 72° E	N 70° E	N 69° E	N 67° E	N 65° E	S 77° W	S 67° W	S 64° W	S 63° W
1.1	0.9	0.3	0.7	0.9	0.9	0.8	0.8	0.6	0.1	0.4	0.9	1.1	1.1
Station (16) East of Great Brewster Island, 0.5 mile N. 44° E. from Boston Light.													
S 66° W	S 70° W	S 73° W	N 37° E	N 60° E	E	S 73° E	S 69° E	S 58° E	. . .	S 53° W	S 57° W	S 61° W	S 65° W
0.6	0.5	0.2	0.1	0.4	0.4	0.3	0.3	0.1	0.0	0.2	0.4	0.5	0.6
Station (17) Black Rock Channel, 0.1 mile N. 25° W. from Narrows Light.													
S 38° W	S 30° W	S 29° W	N 44° E	N 49° E	N 53° E	N 58° E	N 59° E	N 62° E	N 64° E	S 85° W	S 45° W	S 39° W	S 34° W
1.3	1.0	0.3	0.1	0.6	0.8	0.9	0.9	0.8	0.5	0.1	0.6	1.1	1.3
Current stations off Chatham Lights, referred to time of tide at Boston, Mass. *See* pp. 63–66.													
Station (1) About 8.5 miles N. 87° E. from Chatham Lights.													
N 4° W	S 30° W	S 17° W	S 10° W	S 9° W	S 13° W	S 15° W	S 18° W	S 22° W	N 28° E	N 24° E	N 14° E	N 5° E	N 4° W
0.2	0.2	0.6	0.8	0.9	0.8	0.6	0.5	0.2	0.1	0.3	0.4	0.3	0.2
Station (2) About 3.6 miles N. 87° E. from Chatham Lights.													
N 30° W	S 40° W	S 35° W	S 30° W	S 20° W	S 6° W	. . .	N 33° E	N 24° E	N 10° E	N	N 15° W	N 22° W	N 29° W
0.2	0.6	0.9	0.7	0.4	0.1	0.0	0.1	0.4	0.7	0.9	1.0	0.7	0.3
Station (3) About 4.9 miles S. 54° E. from Chatham Lights.													
N 7° E	S 16° W	S 11° W	S 5° W	S 9° W	S 16° W	. . .	. . .	N 12° E	N 11° E	N 10° E	N 9° E	N 8° E	N 7° E
0.1	0.3	0.9	1.2	1.0	0.4	0.0	0.0	0.2	0.7	1.0	0.9	0.5	0.2

It will be seen that at the station (1), 8½ miles off Chatham Lights, the southward flow of current greatly exceeds the northward. This seems to be a characteristic of the offshore currents east of Cape Cod Peninsula, for the same phenomenon exists 5 miles east of Cape Cod Light and 7 miles east of Nauset Three Lights. The above table shows that off Chatham the dividing line between the inshore and the offshore currents lies somewhere between 4 and 8 miles from the shore.

Explanation of Current Diagram, Boston Harbor.

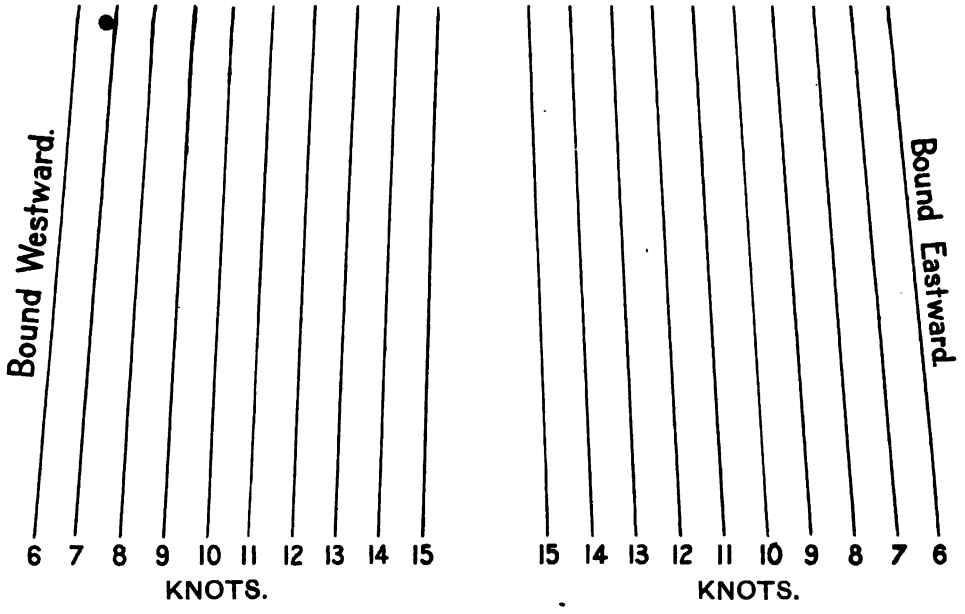
The diagram represents only average conditions of the surface currents along the middle of the channel from the Boston Light Ship to the Navy-Yard, the scale being too small to show details.

On the diagram westerly streams are designated as "Flood" currents and easterly streams as "Ebb" currents. The small figures on the surface of the diagram denote the velocity of the current in knots and tenths of knots.

The speed lines below represent the track of a vessel at certain speeds, supposing there is no current; hence the actual course on the diagram will become more nearly vertical with favorable and less vertical with unfavorable currents.

SPEED LINES.

Boston Harbor.



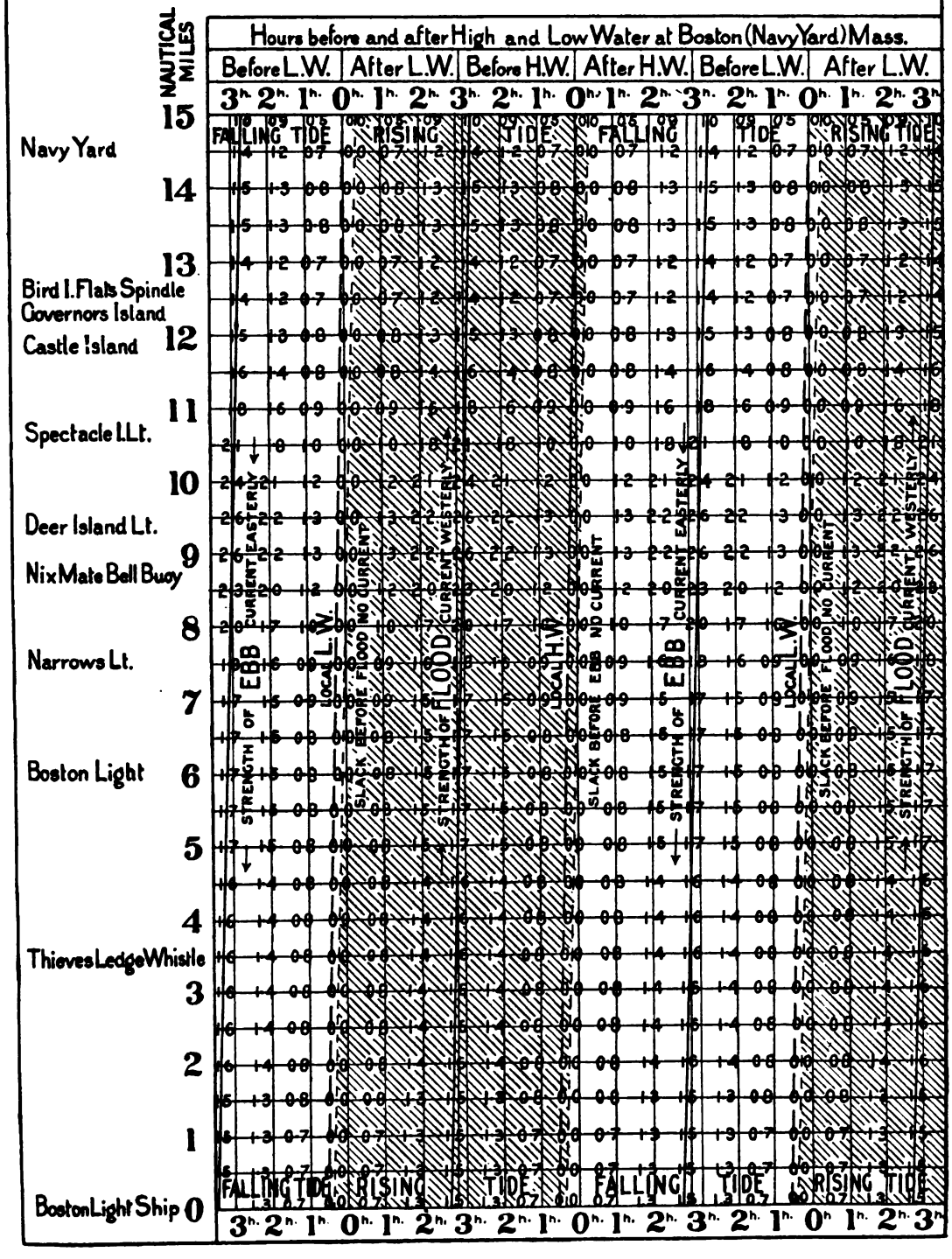
Example.—A vessel leaving the Navy-Yard desires to pass out of Boston Harbor on the morning of a day when low water at the Navy-Yard occurs at 1 h. 03 m. a. m. and high water at 7 h. 07 m. a. m. Her speed being 10 knots, at what time should she get under way so as to carry a favorable current all the way to Boston Light Ship, and what will be the state of the tide?

An inspection of the diagram on the opposite page shows that the most favorable time for leaving the Navy-Yard is about three hours after high water, which is given as occurring at 7 h. 07 m. a. m.; hence, if the vessel leaves the Navy-Yard about 10 a. m. on that day she will have a favorable current averaging about 1.6 knots and a falling tide all the way to the Light Ship.

A vessel entering the harbor and passing Boston Light Ship about three hours before high water at the Navy-Yard will have a favorable current averaging about 1.6 knots and a rising tide all the wav to the Navy-Yard.

CURRENT DIAGRAM

BOSTON HARBOR



Explanation of Current Diagram, Nantucket and Vineyard Sounds.

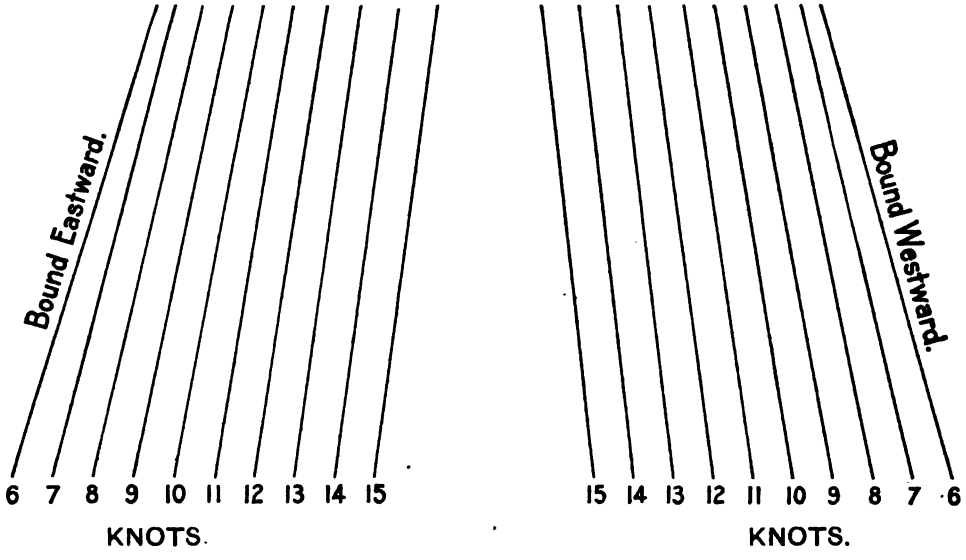
The diagram represents only average conditions of the surface currents along the middle of the channel from Pollock Rip Slue to Gay Head Light, the scale being too small to show details.

On the diagram westerly streams are designated as "Flood" currents and easterly streams as "Ebb" currents. The small figures on the face of the diagram denote the velocity of the current in knots and tenths of knots.

The speed lines below represent the track of a vessel at certain speeds, supposing there is no current; hence the actual course on the diagram will become more nearly vertical with favorable and less vertical with contrary currents.

SPEED LINES.

Nantucket and Vineyard Sounds.



In the case of a vessel running about 12 knots, the most favorable time to enter the Sounds by way of Pollock Rip Slue is about the time of high water at Boston Navy-Yard, which may be found for a given date from the predictions given in these tables.

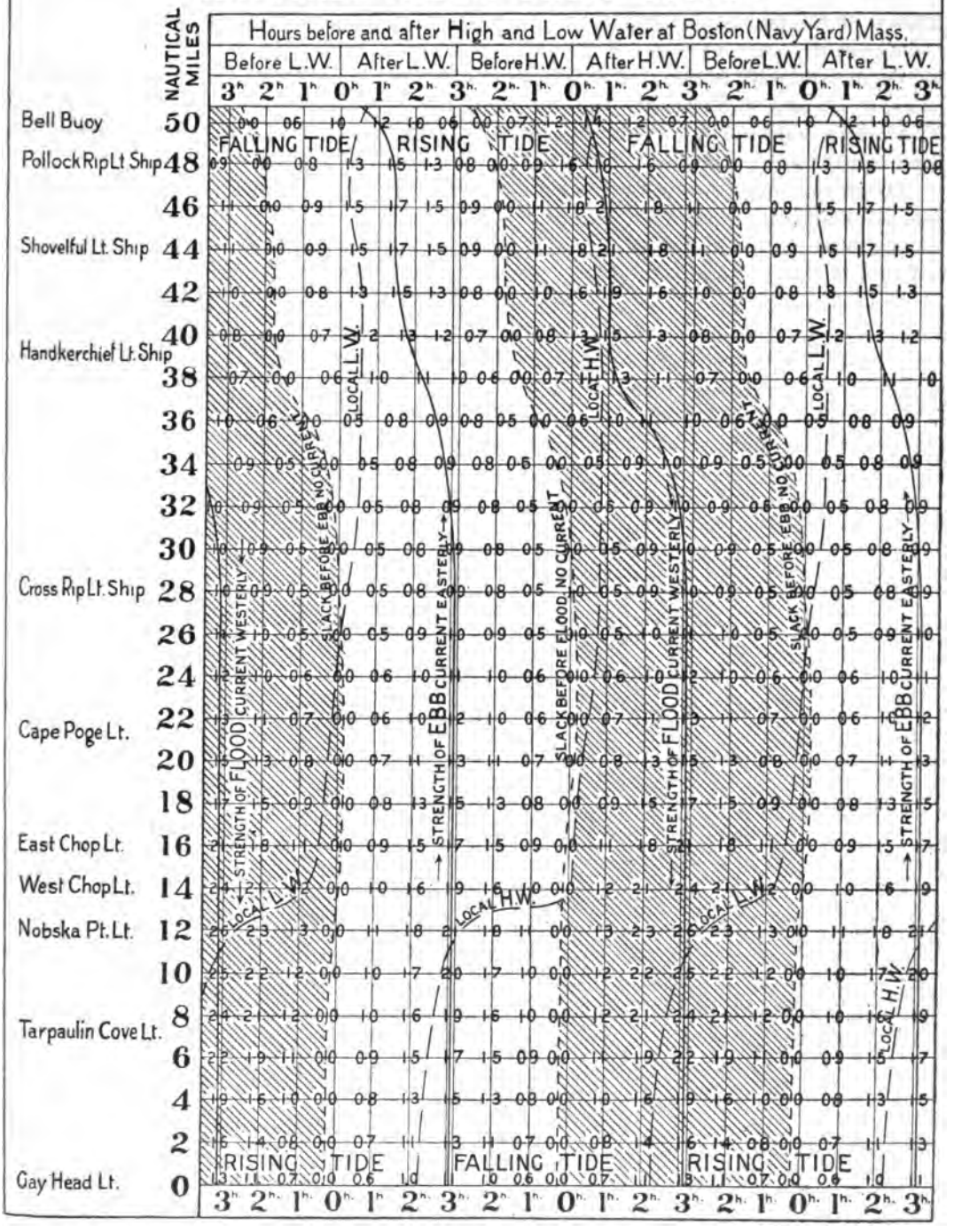
Inspection of the diagram on the opposite page shows that she will then carry a favorable current, averaging about 1.6 knots all the way to Gay Head. The tide will be falling to Nobska Point, and thence to Gay Head rising.

A vessel eastward bound through the Sounds can carry a favorable current only part of the way.

To obtain the most favorable conditions from Gay Head to Pollock Rip Slue, the diagram shows that the vessel should pass Gay Head about one hour after low water at Boston. She will then have a favorable current, averaging about 1.0 knot, to the Handkerchief Light-Ship, and a contrary current, averaging about 0.6 knot, the remainder of the distance. The tide will be rising all the way.

CURRENT DIAGRAM

NANTUCKET AND VINEYARD SOUNDS



Block Island Sound.—Between Point Judith and Block Island the strength of the flood or westerly current is about 1.8 knots, and the strength of the ebb or easterly current somewhat greater.

Between Block Island and Montauk Point the flood or northwesterly current is about 1.2 knots in the middle of the passage, and nearly 2 knots off Montauk Point, while the ebb or southeasterly current is nearly 2 knots across the passage.

About two miles north of Fort Pond Bay the current is about three-quarters of a knot in an easterly and westerly direction.

About a mile north of Cerberus Shoal Whistle the flood or westerly current is 1.4 knots, and the ebb current is 1.7 knots at its strength.

About two miles southeast from Watch Hill Point Light the strength of the flood is about 1.2 knots, and that of the ebb is about 1.0 knot.

The flood and ebb streams are about equal to one another half a mile to the northwest of Watch Hill Reef Spindle, and are 1.2 knots at their strength.

Long Island Sound.—All along the axis of the Sound from The Race to Eatons Point ebb begins about two hours twenty minutes after high water, and flood begins about three hours after low water at New London, Conn. Farther west these intervals gradually increase, but become very uncertain.

At the eastern end of the Sound the currents turn about an hour earlier along the shores than along a line midway between the shores.

HIGH WATER.							LOW WATER.						
Hours before.			Hours after.				Hours before.			Hours after.			
3	2	1	0	1	2	3	3	2	1	0	1	2	3
Current stations in Long Island Sound, referred to time of tide at New London, Conn. See pp. 71–74.													
Station (1) Long Island Sound, 4 miles S. from the mouth of the Connecticut River.													
N 73° W	S 85° W	S 65° W	S 60° W	S 75° W	. . .	N 55° E	N 51° E	N 46° E	N 48° E	N 53° E	N 60° E	N 67° E	N 75° W
0.4	1.0	1.5	1.6	1.2	0.0	1.1	1.6	2.1	2.4	2.4	1.6	0.5	0.2
Station (2) Long Island Sound, 8 miles S. from the Thimbles.													
W	S 85° W	S 78° W	S 70° W	S 62° W	S 54° W	N 50° E	N 51° E	N 53° E	N 55° E	N 57° E	N 59° E	N 61° E	N 88° W
0.1	0.7	1.2	1.5	1.0	0.2	0.1	0.4	0.9	1.2	1.0	0.7	0.3	0.1

In The Race the velocity at strength of ebb is 3.0 knots and of flood 2.5 knots. Going westward along the axis of the Sound these velocities gradually diminish until south of New Haven, where they are 1.1 and 1.0 knots, respectively. Going farther west they increase slightly until north of Eatons Point, where they are 1.3 and 1.4 knots, respectively. Still continuing westward, the velocities again diminish until between Rye Neck and Matinicock Point, where the ebb and the flood are not distinct and the velocity of either is 0.5 knot. Westward the velocities increase slightly, and off Pelham Bay are 0.9 knot for ebb and 0.7 knot for flood.

East River, N. Y.—The currents at different points along the East River are greatly modified by local conditions.

Off Old Ferry Point the slack before ebb lasts about twenty minutes and the slack before flood about eighteen minutes. The currents are quite irregular in this region.

Between Lawrence Point and Middle Ground slack water usually lasts less than ten minutes. The current flows directly along the channel.

Off Polhemus Dock slack water usually lasts from five to ten minutes. The currents follow the channel. Close to Polhemus Dock, within 200 feet, eddy currents are often found.

Between Wards Island and Ringgold's Dock slack water lasts twenty-five minutes.

Between Hallets Point and Hogs Back 8 knots have been measured on the flood; but elsewhere between Lawrence Point and Blackwells Island 3 and 4 knots at strength of ebb and flood are characteristic.

Between Hallets Point and Flood Rock the most rapid current on the ebb is very close to Flood Rock; the currents are direct and strong, with comparatively few eddies.

Off Hallets Point both ebb and flood set directly toward the Frying Pan Shoal. The flood current (setting to the eastward) sweeps close around Hallets Point and makes less eddy in the cove to the eastward than is found there on the ebb.

Between Great Mill Rock and Wards Island the flood current has numerous though not violent eddies. The slack water is of only a few minutes' duration. The main stream passes to the southward of Flood Rock.

There are strong eddies off Blackwells Island Light-House and off Hatter's Dock (the northern point of entrance to Hallets Cove).

In Blackwells Island Western Channel slack water usually lasts less than ten minutes. The currents follow the channel, and turn at nearly the same time throughout its length.

In Blackwells Island Eastern Channel slack water usually lasts less than five minutes. The current generally begins to follow the channel within thirty minutes of its slack. It has at no time any considerable velocity crosswise the channel. On the Blackwells Island side the current is about the same as in the channel, even to within a few feet of the sea wall. Both on the ebb and flood there is little current in the vicinity of the sea wall on the Long Island side. The currents turn at nearly the same time throughout the length of this channel.

Off East Twenty-third street slack water lasts from four to eight minutes. The strength of the ebb is nearly 3 knots.

HIGH WATER.							LOW WATER.						
Hours before.			Hours after.				Hours before.			Hours after.			
3	2	1	0	1	2	3	3	2	1	0	1	2	3
Current stations in Arthur Kill, referred to time of tide at Sandy Hook, New Jersey. *See* pp. 83–86.													
Station (1)				Off Tottenville, Staten Island.									
N 45° E	N 45° E	N 45° E	N 45° E	S 45° W	S 45° W	S 45° W	S 45° W	S 45° W	S 45° W	S 45° W	N 45° E	N 45° E	N 45° E
0.9	1.0	1.1	0.9	0.4	0.7	1.2	1.2	1.1	0.9	0.5	0.3	0.5	0.7
Station (2)				Off Rossville, Staten Island.									
N 45° E	N 45° E	N 45° E	N 45° E	. . .	S 45° W	S 45° W	S 45° W	S 45° W	S 45° W	S 45° W	N 45° E	N 45° E	N 45° E
0.5	0.5	0.4	0.2	0.0	0.2	0.5	0.5	0.5	0.4	0.1	0.2	0.4	0.5
Station (3)				Off Island View, New Jersey.									
N 20° E	N 20° E	N 20° E	N 20° E	N 20° E	S 20° W	S 20° W	S 20° W	S 20° W	S 20° W	S 20° W	. . .	N 20° E	N 20° E
0.8	0.8	0.8	0.6	0.2	0.1	0.6	0.7	0.9	0.9	0.5	0.0	0.3	0.7
Station (4)				About 0.4 mile N. 5° W. from Pralls Island.									
N 10° W	N 10° W	N 10° W	N 10° W	N 10° W	N 10° W	S 10° E	S 10° E	S 10° E	S 10° E	S 10° E	S 10° E	S 10° E	N 10° W
1.0	1.6	1.5	1.3	0.9	0.2	0.5	0.5	0.8	1.0	1.1	0.9	0.5	1.0

HIGH WATER.							LOW WATER.						
Hours before.			Hours after.				Hours before.			Hours after.			
3	2	1	0	1	2	3	3	2	1	0	1	2	3
Current stations in Newark Bay, referred to time of tide at New York, N. Y. See pp. 79–82.													
Station (1) Off the mouth of Elizabethport Creek, New Jersey.													
N 36° E	N 36° E	N 36° E	N 36° E	N 36° E	S 36° W	S 36° W	S 36° W	S 36° W	S 36° W	S 36° W	S 36° W	. . .	N 36° E
1.1	1.5	1.7	1.5	0.7	0.2	1.0	1.0	1.3	1.3	1.1	0.7	0.0	0.7
Station (2) About 0.2 mile W. from Corner Stake Light.													
N 85° E	N 85° E	N 85° E	N 85° E	N 85° E	S 85° W	S 85° W	S 85° W	S 85° W	S 85° W	S 85° W	S 85° W	N 85° E	N 85° E
1.1	1.2	1.2	0.8	0.4	0.2	0.8	0.8	1.0	0.9	0.7	0.3	0.4	1.0
Station (3) About 0.4 mile N. 28° E. from Corner Stake Light.													
N 10° W	N 10° W	N 10° W	N 10° W	N 10° W	S 10° E	S 10° E	S 10° E	S 10° E	S 10° E	S 10° E	S 10° E	. . .	N 10° W
0.5	0.7	0.7	0.4	0.1	0.1	0.4	0.4	0.6	0.6	0.4	0.2	0.0	0.2
Station (4) Off Newark, N. J., 0.1 mile below railroad bridge at outlet of Morris Canal.													
N 45° W	N 45° W	N 45° W	N 45° W	N 45° W	S 45° E	S 45° E	S 45° E	S 45° E	S 45° E	S 45° E	S 45° E	S 45° E	N 45° W
0.6	0.8	0.8	0.6	0.1	0.2	0.6	0.6	0.8	0.8	0.7	0.5	0.1	0.5
Current stations in Kill van Kull, referred to time of tide at New York, N. Y. See pp. 79–82.													
Station (1) About 0.1 mile S. from Bergen Point, New Jersey.													
N 75° W	N 75° W	N 75° W	N 75° W	. . .	S 75° E	S 75° E	S 75° E	S 75° E	S 75° E	S 75° E	S 75° E	N 75° W	N 75° W
1.8	1.7	1.1	0.6	0.0	0.7	1.5	1.5	2.0	1.7	1.0	0.2	0.8	1.7
Station (2) Off Port Richmond, Staten Island.													
S 80° W	S 80° W	S 80° W	S 80° W	N 80° E	N 80° E	N 80° E	N 80° E	N 80° E	N 80° E	N 80° E	. . .	S 80° W	S 80° W
1.8	1.8	1.5	0.8	0.8	1.6	2.1	2.1	2.2	1.6	0.9	0.0	1.2	1.7
Station (3) Off New Brighton, Staten Island.													
W	W	W	E	E	E	E	E	E	E	E	W	W	W
0.6	0.4	0.2	0.2	0.6	0.9	1.0	1.0	0.8	0.6	0.2	0.2	0.5	0.6

The currents in Arthur Kill and Kill van Kull generally follow the direction of the channel.

Hudson River, N. Y.—In the path of the Hudson, from the Narrows to the Tappan Sea, it is running flood 15 feet below the surface fully an hour before the turning from ebb to flood at the surface. Slack before ebb lasts from forty to fifty-five minutes. Slack before flood lasts about thirty-five minutes.

The Narrows.—Slack water lasts from fifteen to thirty minutes. Both the ebb and flood currents appear first on the east side.

Near West Side of East Bank.—There is usually a slack before the flood current lasting about ten minutes.

Channels in New York Lower Bay.—In the Fourteen Feet Channel both the ebb and flood currents set obliquely across the channel. In the East, Swash, Main, and Gedney channels slack water lasts about twenty-five minutes. The half-ebb currents in the Swash Channel set to the eastward strongly. In the Main and Swash channels the flood current starts in on their north side thirty minutes earlier than on the south side, and the ebb current starts out on the south side of the channel thirty minutes earlier than on the north side.

Explanation of Current Diagram of East River, New York.

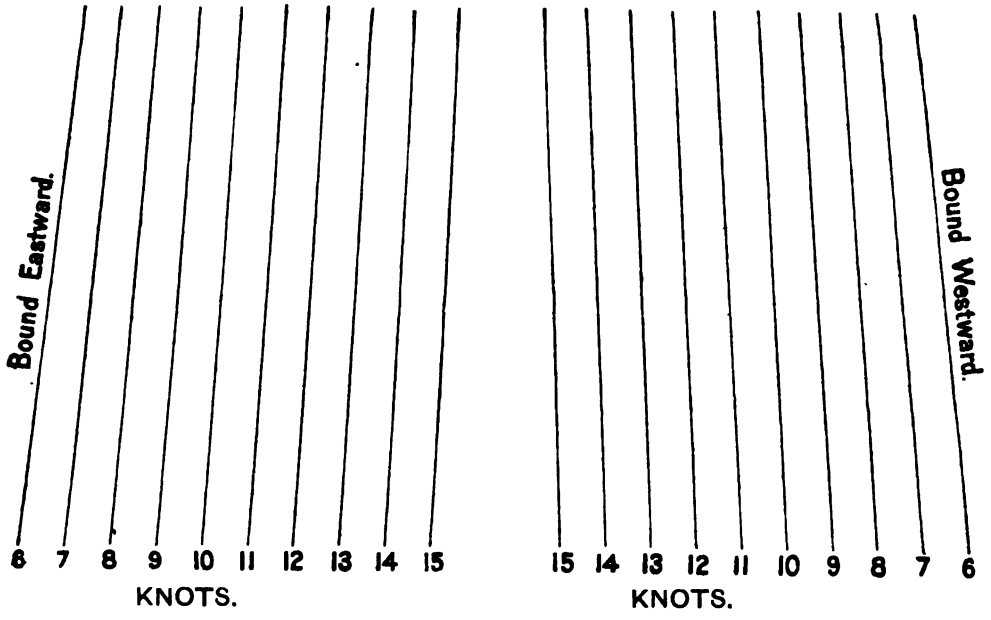
The diagram represents only average conditions of the surface currents along the middle of the channel between Governors Island and Execution Rocks, the scale being too small to show details. Between Halletts Point and Hogs Back a velocity of 8 knots has been observed, although the usual current is much less. Eddies, of more or less violence, occur in numerous localities in the East River, but as a general rule the currents follow the channels.

On the diagram east streams are designated as "Flood" currents and west streams as "Ebb" currents. The small figures on the surface of the diagram denote the velocity of the current in knots and tenths of knots.

The speed lines below represent the track of a vessel at certain speeds, supposing there is no current; hence the actual course on the diagram will become more nearly vertical with favorable, and less vertical with contrary currents.

SPEED LINES.

East River, New York.

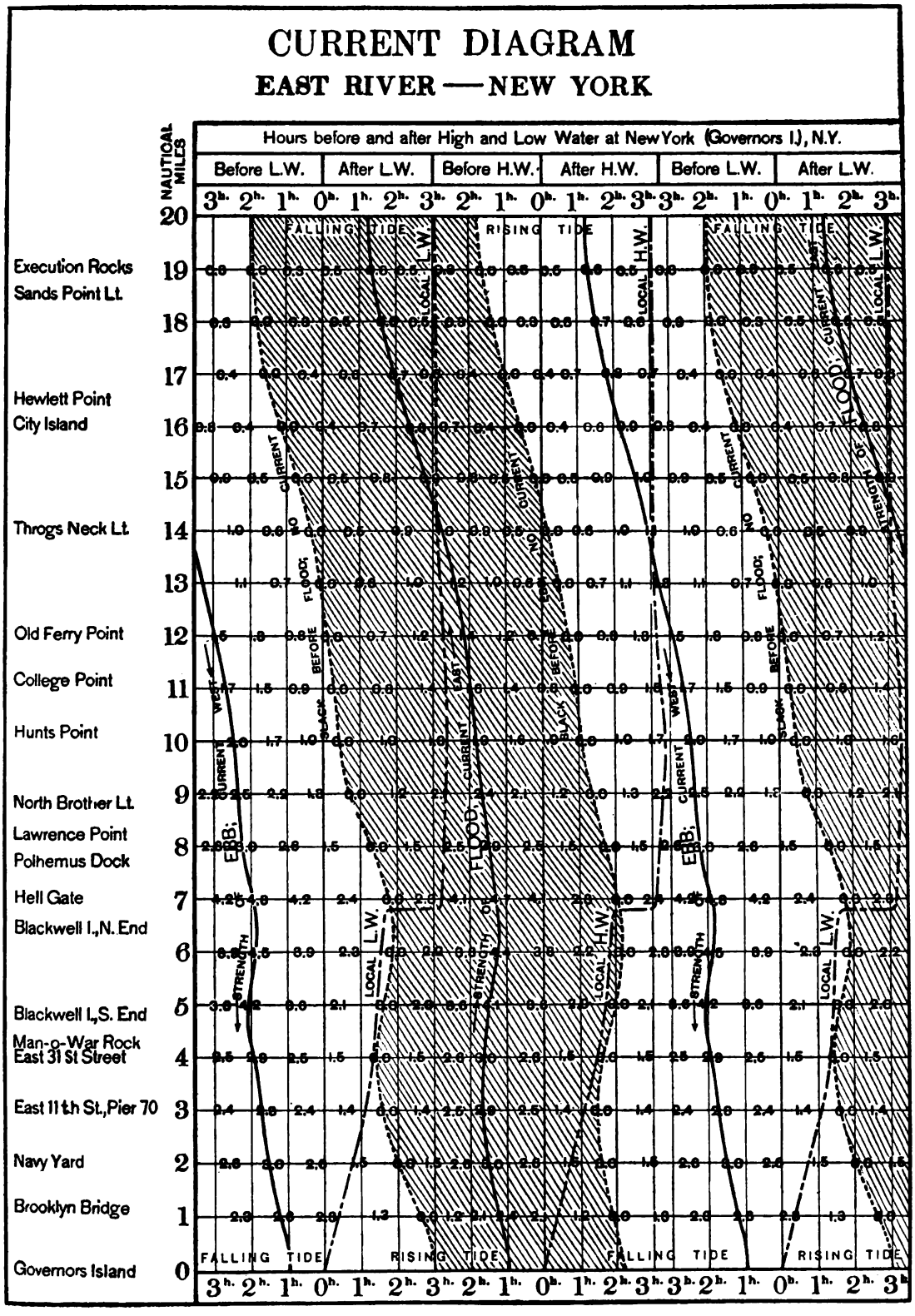


Example.—A vessel at anchor in New York Harbor desires to pass through the East River in the afternoon of a day when high water at Governors Island occurs at 5h. 04m. p. m. and low water at 11h. 20m. p. m. Her speed being 12 knots, at what time should she get under way so as to carry a favorable current all the way, and what will be the state of the tide?

An inspection of the diagram on the opposite page shows that the most favorable time for going out from Governors Island is about three hours before high water, which is given as occurring at 5h. 04m. p. m.; hence, if the vessel is abreast of Governors Island at 2 p. m. on that day and runs at a speed of 12 knots, she will carry a favorable current averaging about 1.6 knots all the way. If she is abreast of Governors Island at 5 p. m., or the approximate time of high water, and runs at a speed of 12 knots, she will carry a favorable current through Hell Gate, but will meet a contrary current near College Point. In both cases the tide will be rising throughout the course to Execution Rocks.

CURRENT DIAGRAM

EAST RIVER — NEW YORK



Explanation of Current Diagram of New York Entrance by way of Sandy Hook and Hudson River.

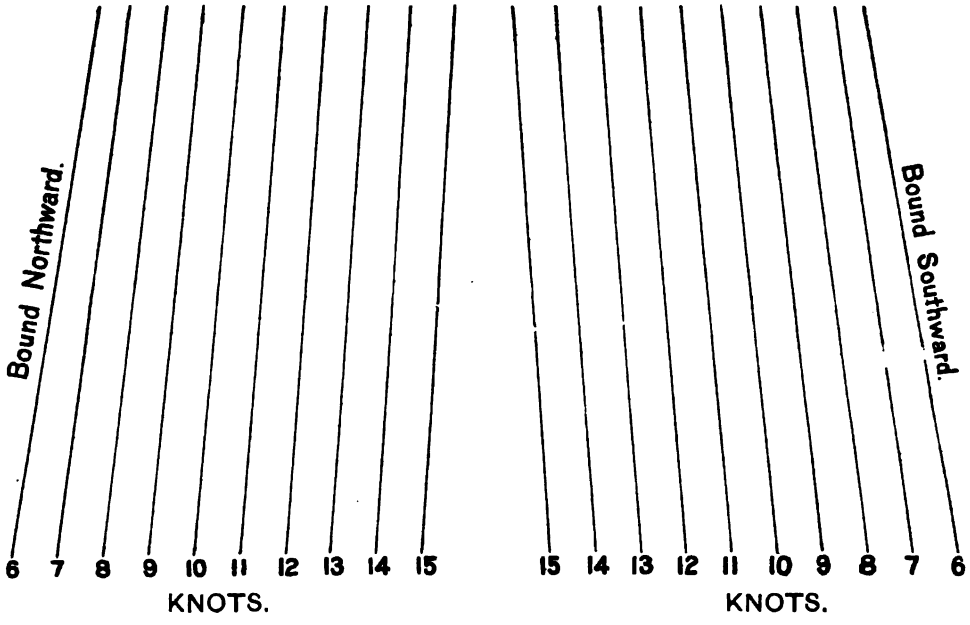
The diagram represents only average conditions of the surface currents along the middle of the channel between Scotland Light Ship and the Spuyten Duyvil, the scale being too small to show details. In the path of the Hudson, from The Narrows to the Tappan Sea, it is running flood 15 feet below the surface fully an hour before the turning from ebb to flood at the surface.

On the diagram flood streams are designated as "north" currents, and ebb streams as "south" currents. The small figures on the surface of the diagram denote the velocity of the current in knots and tenths of knots.

The speed lines below represent the track of a vessel at certain speeds, supposing there is no current; hence the actual course on the diagram will become more nearly vertical with favorable and less vertical with contrary currents.

SPEED LINES.

New York Entrance by way of Sandy Hook.

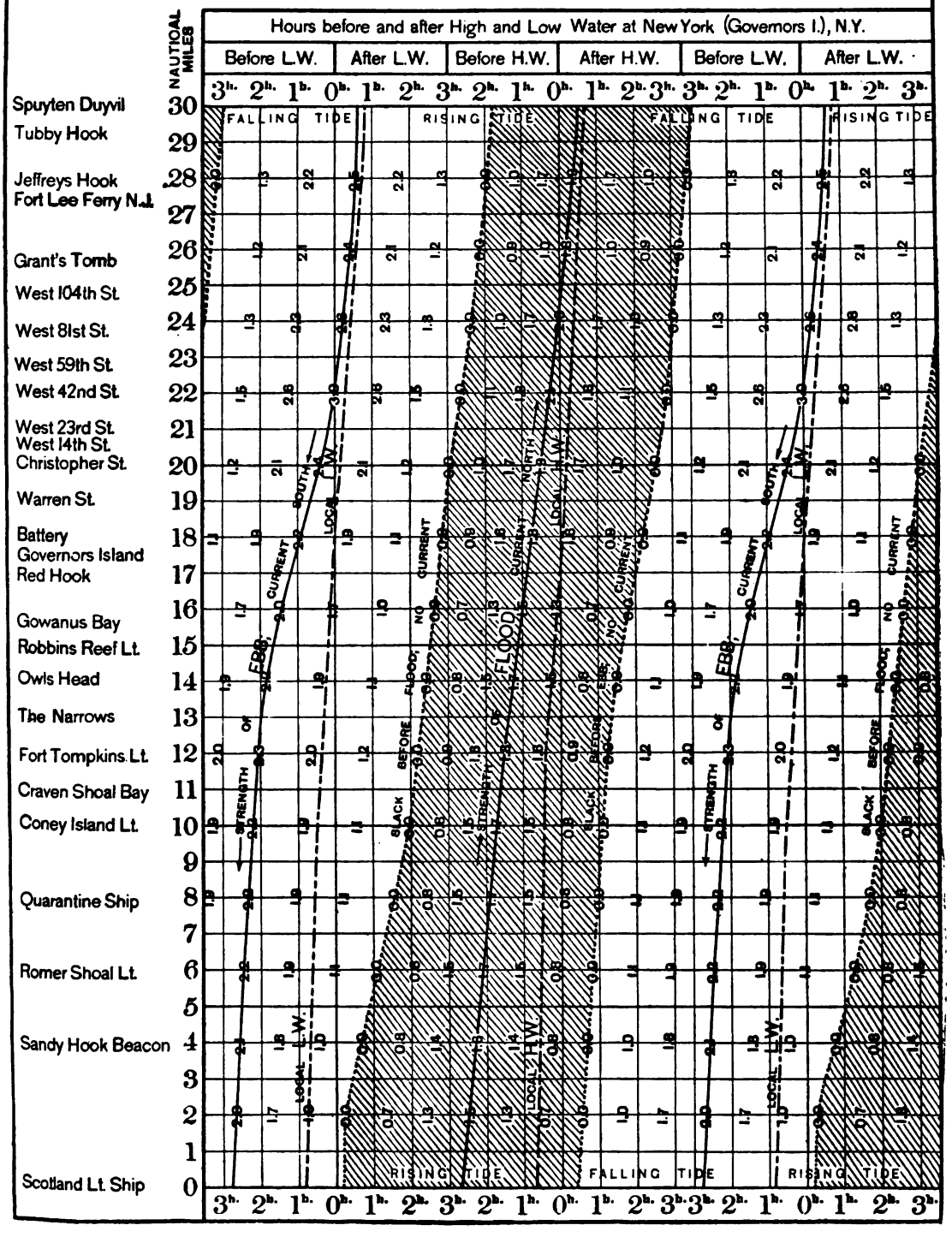


Example.—A vessel at anchor in New York Harbor desires to pass through The Narrows in the forenoon of a day when high water at Governors Island occurs at 1h. 20m. a. m., and low water at 7h. 55m. a. m. At what time should she get under way to carry a favorable current all the way to Scotland Light Ship, and what will be the state of the tide?

An inspection of the diagram on the opposite page shows that the most favorable time for going out from Governors Island is about three hours before low water, which is given as occurring at 7h. 55m. a. m.; hence, if the vessel is abreast of Governors Island at 5 a. m. on that day and runs at a speed of 10 knots, she will carry a favorable current averaging about 2 knots all the way. If she is abreast of Governors Island at 8 a. m., or the approximate time of low water, and runs at a speed of 10 knots, she will carry a favorable current through The Narrows, but will meet a contrary current near Romer Shoal Light. In the first case the tide will be falling throughout the course to Scotland Light Ship, which will be reached near the time of low water. In the other case the tide will be rising throughout the whole course.

CURRENT DIAGRAM

NEW YORK ENTRANCE BY WAY OF SANDY HOOK



Explanation of current diagram, Delaware Bay.

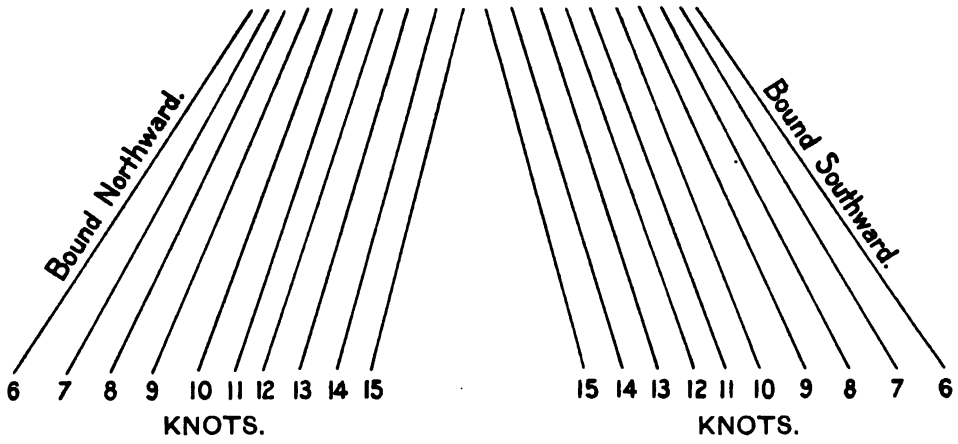
The diagram represents only average conditions of the surface currents along the middle of the channel between Bridesburg and Five Fathoms Bank Light, the scale being too small to show details.

On the diagram northerly streams are designated as "Flood" currents and southerly streams as "Ebb" currents. The small figures on the diagram denote the velocities of the current in knots and tenths of knots.

The speed lines below represent the track of a vessel at certain speeds, supposing there is no current; hence the actual course on the diagram will become more nearly vertical with favorable and less vertical with contrary currents.

SPEED LINES.

Delaware Bay.



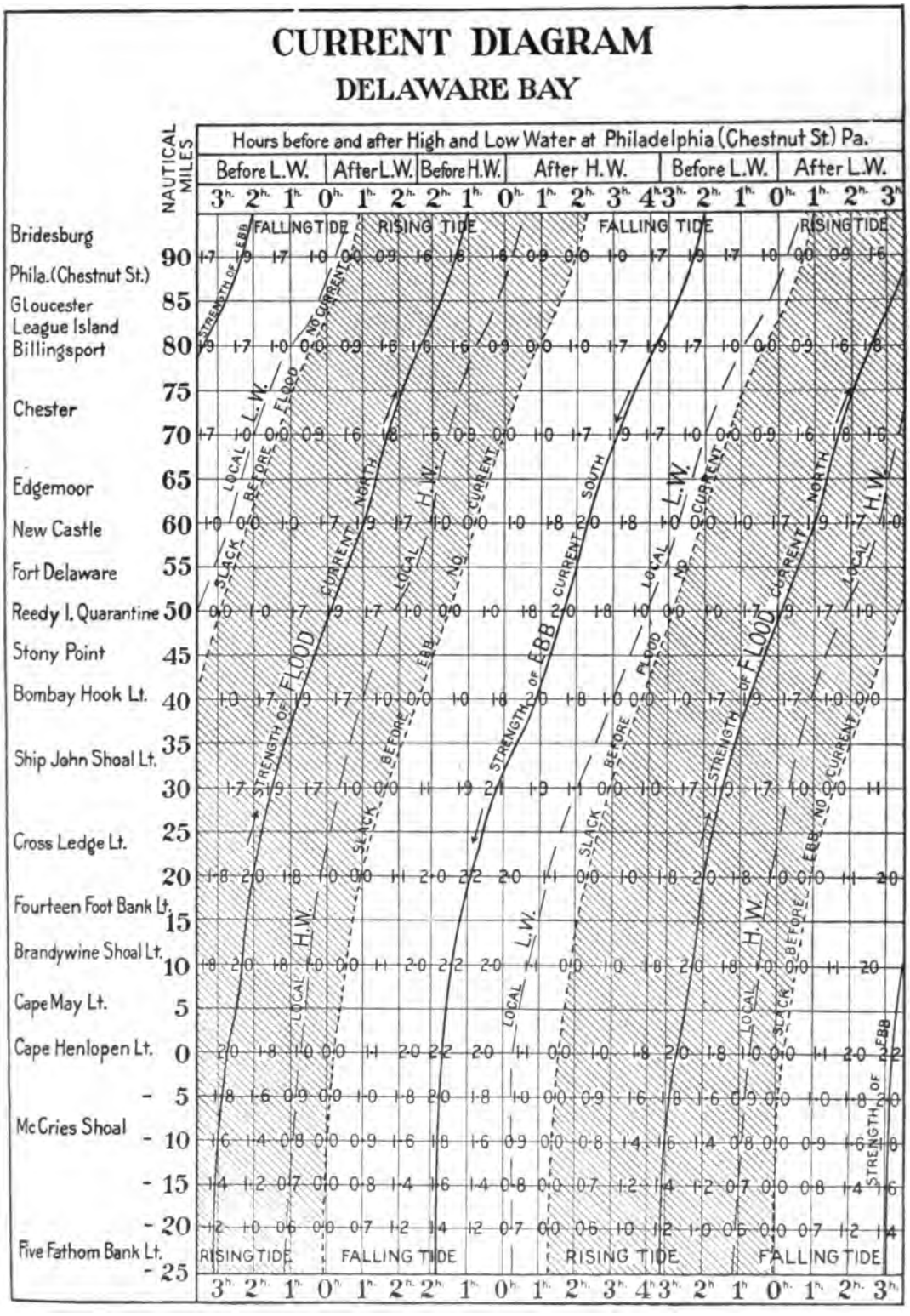
Example.—A vessel leaving Cape Henlopen on a day when high water at Philadelphia occurs at 1h. 11m. a. m., and low water at 8h. 18m. a. m., desires to carry a favorable current all the way to Philadelphia. Her speed being 12 knots, at what time should she get under way and what will be the state of the tide?

An inspection of the diagram on the opposite page shows that the most favorable time for leaving Cape Henlopen is about three hours before low water at Philadelphia, which is given as occurring at 8h. 18m. a. m., hence, if the vessel leaves Cape Henlopen about 5 a. m. on that day, and runs at a speed of 12 knots, she will carry a favorable current averaging about 1.9 knots, with a rising tide all the way.

A vessel leaving Philadelphia and running 12 knots can carry a favorable current only about one-half the way. The most favorable time to leave is about the time of low water at Philadelphia. She will then have an unfavorable current averaging about 1 knot as far as Stony Point and carry a favorable current averaging about 1.3 knots the remaining distance. As far as Fort Delaware the tide will be rising; from Fort Delaware to Cape Henlopen the tide will be falling.

CURRENT DIAGRAM

DELAWARE BAY



Explanation of Current Diagram, Chesapeake Bay.

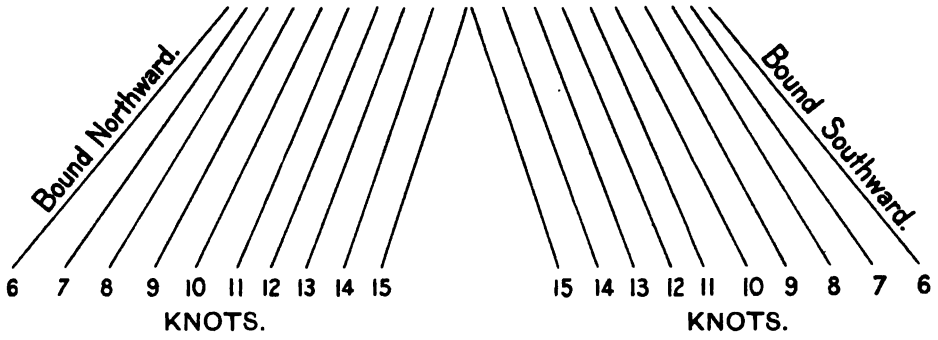
The diagram represents only average conditions of the surface currents along the middle of the channel from Cape Henry Light to Baltimore, the scale being too small to show details.

On the diagram northerly streams are designated as "Flood" currents and southerly streams as "Ebb" currents. The small figures on the face of the diagram denote the velocity of the currents in knots and tenths of knots.

The speed lines below represent the track of a vessel at certain speeds, supposing there is no current; hence, the actual course on the diagram will become more nearly vertical with favorable and less vertical with contrary currents.

SPEED LINES.

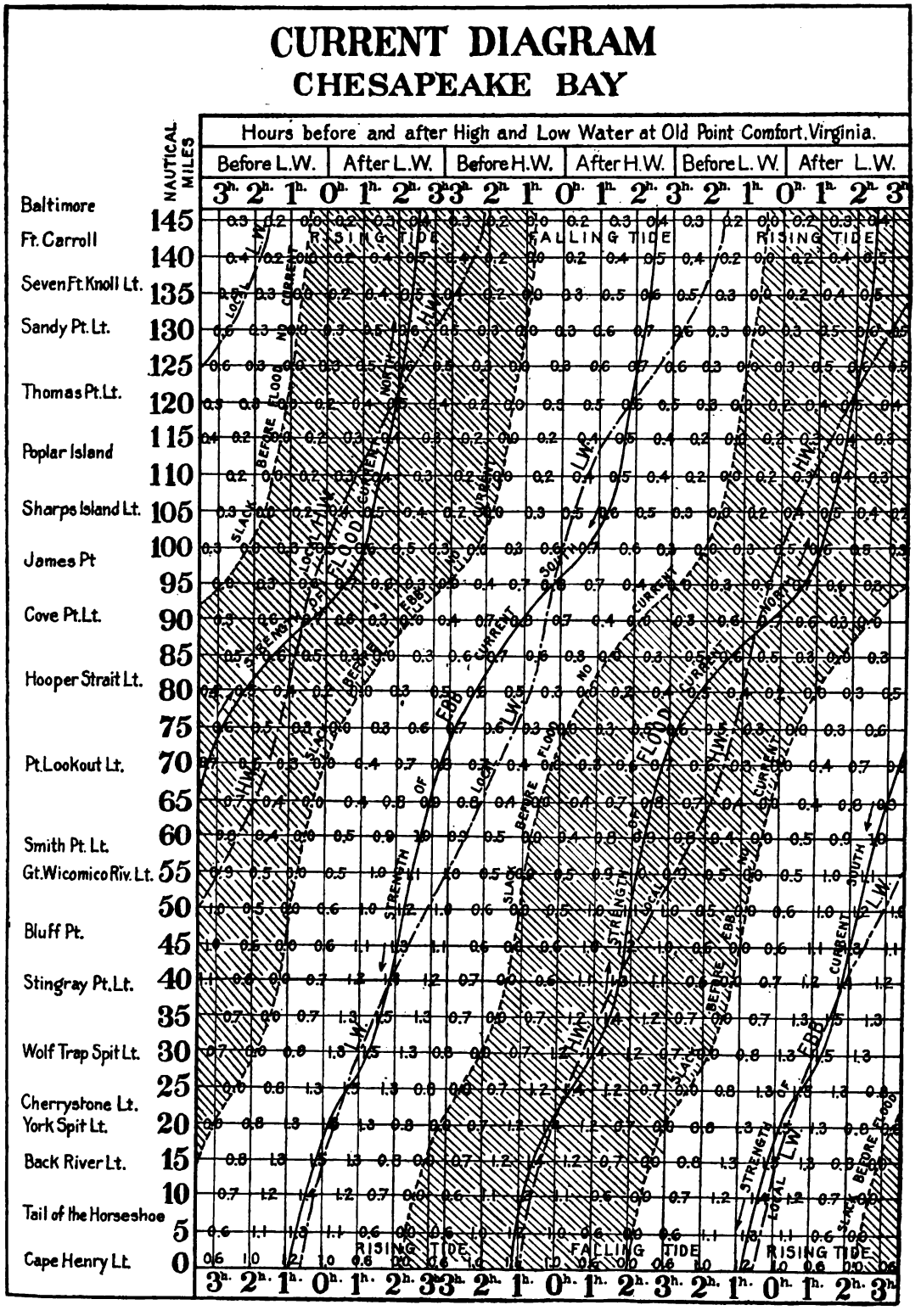
Chesapeake Bay.



In the case of a vessel bound for Baltimore and running about 12 knots the most favorable time for passing Cape Henry is from two to three hours before high water at Old Point Comfort. Inspection of the diagram on the opposite page shows that she will then carry a favorable current averaging about 0.8 knot all the way to Baltimore. As far as James Point the tide will be rising, and from there to Baltimore it will be about local high water. To find the best time to leave Cape Henry on any given date subtract between two to three hours from the time of high water for that date as given in these tables.

A vessel leaving Baltimore and running at a speed of 12 knots can carry a favorable current at best only about two-thirds of the way to Cape Henry. Inspection of the diagram shows that the most favorable time to leave Baltimore is about two hours before high water at Old Point Comfort, or about high water at Baltimore. Leaving at this time a favorable current, averaging about 0.3 knot, will be carried to Cove Point; from Cove Point to Smith Point a contrary current, averaging about 0.4 knot, will be met, and from Smith Point to Cape Henry a favorable current, averaging about 0.8 knot, will be carried. The tide will be falling from Baltimore to Poplar Island and from Point Lookout to Wolf Trap Spit, and rising the remainder of the distance.

CURRENT DIAGRAM
CHESAPEAKE BAY


Hours before and after High and Low Water at Old Point Comfort, Virginia.
Before L.W.
After L.W.
Before H.W.
After H.W.
Before L.W.
After L.W.
NAUTICAL MILES
Baltimore
Ft. Carroll
Seven Ft. Knoll Lt.
Sandy Pt. Lt.
Thomas Pt. Lt.
Poplar Island
Sharps Island Lt.
James Pt
Cove Pt. Lt.
Hooper Strait Lt.
Pt. Lookout Lt.
Smith Pt. Lt.
Gt. Wicomico Riv. Lt.
Bluff Pt.
Stingray Pt. Lt.
Wolf Trap Spit Lt.
Cherrystone Lt.
York Spit Lt.
Back River Lt.
Tail of the Horseshoe
Cape Henry Lt.
RISING TIDE
FALLING TIDE
RISING TIDE
RISING TIDE
FALLING TIDE
RISING TIDE
FLOOD
EBB
FLOOD
EBB
FLOOD
EBB

SEYMOUR NARROWS (Discovery Passage), BRITISH COLUMBIA, 1904.

TIMES OF SLACK WATER.

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
			S to N.	N to S.	S to N.	N to S.
	F	1	4:30	11:00	15:45	22:00
N ○	S	2	5:10	11:35	16:30	22:45
	S	3	5:40	12:10	17:10	23:25
P	M	4	6:10	12:50	18:00	. . .
			N to S.	S to N.	N to S.	S to N.
	Tu	5	0:10	6:50	13:30	19:00
	W	6	1:00	7:35	14:00	20:10
	Th	7	2:00	8:20	14:40	21:20
E	F	8	3:05	9:05	15:35	22:30
☾	S	9	4:20	10:05	16:30	23:40
	S	10	5:50	11:00	17:30	. . .
			S to N.	N to S.	S to N.	N to S.
	M	11	0:50	7:05	12:10	18:35
	Tu	12	1:55	8:20	13:10	19:20
	W	13	2:40	9:15	14:00	20:10
	Th	14	3:25	10:00	14:50	21:00
S	F	15	4:05	10:40	15:35	21:45
	S	16	4:40	11:10	16:10	22:25
●	S	17	5:15	11:40	16:55	23:00
	M	18	5:40	12:05	17:25	23:40
A	Tu	19	6:15	12:35	18:05	. . .
			N to S.	S to N.	N to S.	S to N.
	W	20	0:25	6:50	13:10	18:55
	Th	21	1:10	7:25	13:45	19:50
E	F	22	2:05	8:00	14:20	20:50
	S	23	3:00	8:40	15:20	21:50
	S	24	4:00	9:25	16:10	23:00
☽	M	25	5:10	10:20	17:10	. . .
			S to N.	N to S.	S to N.	N to S.
	Tu	26	0:30	6:40	11:40	18:20
	W	27	1:40	8:00	12:40	19:10
	Th	28	2:40	8:50	13:50	20:00
N	F	29	3:25	9:40	14:40	20:55
	S	30	4:00	10:30	15:25	21:40
	S	31	4:35	11:00	16:10	22:25

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
			S to N.	N to S.	S to N.	N to S.
○ P	M	1	5:10	11:30	17:00	23:10
	Tu	2	5:45	12:00	17:55	23:55
	W	3	6:25	12:35	18:55	. . .
			N to S.	S to N.	N to S.	S to N.
E	Th	4	0:50	6:55	13:05	19:50
	F	5	1:40	7:30	13:45	20:50
	S	6	2:40	8:20	14:40	21:50
	S	7	4:00	9:10	15:50	22:55
☾	M	8	5:25	10:25	17:05	. . .
			S to N.	N to S.	S to N.	N to S.
	Tu	9	0:00	7:00	11:30	18:05
	W	10	1:00	8:05	12:30	19:00
S	Th	11	2:00	9:10	13:25	19:50
	F	12	2:50	9:55	14:15	20:40
	S	13	3:25	10:25	15:20	21:25
	S	14	4:00	10:55	16:10	22:15
A	M	15	4:40	11:20	16:45	23:00
●	Tu	16	5:10	11:40	17:30	23:40
	W	17	5:40	12:05	18:05	. . .
			N to S.	S to N.	N to S.	S to N.
	Th	18	0:15	6:15	12:35	18:45
E	F	19	1:00	6:50	13:10	19:30
	S	20	1:40	7:20	13:40	20:15
	S	21	2:30	8:00	14 30	21:00
	M	22	3:30	8:40	15:25	22:00
	Tu	23	4:20	9:40	16:15	23:20
☽	W	24	6:00	11:00	17:25	. . .
			S to N.	N to S.	S to N.	N to S.
	Th	25	0:45	7:35	12:10	18:30
N	F	26	1:50	8:40	13:15	19:30
	S	27	2:40	9:25	14:10	20:20
	S	28	3:20	10:00	15:10	21:20
	M	29	3:55	10:20	16:00	22:10

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
			S to N.	N to S.	S to N.	N to S.
P ○	Tu	1	4:35	10:45	16:55	23:00
	W	2	5:10	11:10	17:40	23:50
E	Th	3	5:40	11:35	18:30	. . .
			N to S.	S to N.	N to S.	S to N.
	F	4	0:40	6:15	12:10	19:25
	S	5	1:40	7:00	12:40	20:10
	S	6	2:40	7:50	13:45	21:15
	M	7	3:40	8:40	14:40	22:10
☾	Tu	8	4:40	9:45	15:40	23:20
S	W	9	6:10	10:45	16:50	. . .
			S to N.	N to S.	S to N.	N to S.
	Th	10	0:20	7:20	11:50	18:05
	F	11	1:20	8:40	13:00	19:20
	S	12	2:10	9:25	14:00	20:25
A	S	13	3:00	10:00	15:00	21:40
	M	14	3:50	10:30	16:00	22:30
	Tu	15	4:20	10:55	16:40	23:20
●	W	16	5:05	11:30	17:30	. . .
			N to S.	S to N.	N to S.	S to N.
E	Th	17	0:00	5:40	12:00	18:10
	F	18	0:40	6:00	12:20	18:45
	S	19	1:20	6:30	12:45	19:20
	S	20	1:45	6:50	13:10	19:50
	M	21	2:20	7:10	13:35	20:30
	Tu	22	3:00	7:45	14:10	21:15
	W	23	4:00	8:30	15:00	22:20
N ☽	Th	24	5:10	9:30	16:00	23:45
	F	25	6:25	11:00	17:10	. . .
			S to N.	N to S.	S to N.	N to S.
	S	26	1:20	7:25	12:45	18:35
	S	27	2:25	8:15	14:15	20:00
	M	28	3:15	9:00	15:20	21:00
P	Tu	29	4:00	9:40	16:15	22:30
E	W	30	4:40	10:20	17:00	23:20
○	Th	31	5:15	11:00	17:40	. . .

This table gives the predicted 120th meridian times of Middle Slack Water; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon: for instance, 15:42 is 3:42 p. m. The heading "N to S" in the body of the table means that the current which had been setting toward the north before the time of slack water will begin to set southward shortly after that time; and "S to N" means exactly the reverse. Symbols and abbreviations relating to the moon: ●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator (not to be confounded with the compass directions over the times of slack); A, P, moon in apogee or perigee. The times in heavy faced type are those which are most likely to be followed by a comparatively weak current. At weakest neap tides the passage may be made at all stages of the current. The current at spring tides in Seymour Narrows attains an estimated velocity of 12 miles or more per hour; and when it is setting strong to the southward heavy and dangerous swirls and overfalls form along the south shore of Maude Island, and generally, though in a somewhat lessened degree, over the surface of the channel between Maude Island and Race Point. With a strong northerly

SEYMOUR NARROWS (Discovery Passage), BRITISH COLUMBIA, 1904.

TIMES OF SLACK WATER.

APRIL.								MAY.								JUNE.							
Moon.	Day of— W.	Day of— Mo.	Current turns from—					Moon.	Day of— W.	Day of— Mo.	Current turns from—					Moon.	Day of— W.	Day of— Mo.	Current turns from—				
			N to S.	S to N.	N to S.	S to N.					N to S.	S to N.	N to S.	S to N.					N to S.	S to N.	N to S.	S to N.	
	F	1	0:05	5:50	11:45	18:20			S	1	0:20	5:15	11:50	18:45			W	1	1:45	6:25	12:50	19:40	
	S	2	0:50	6:20	12:20	19:00			M	2	1:10	6:05	12:40	19:30			Th	2	2:30	7:30	13:40	20:20	
	S	3	1:30	6:55	13:00	19:40		S	Tu	3	1:55	6:45	13:15	20:05			F	3	3:15	8:35	14:30	21:10	
	M	4	2:20	7:30	13:50	20:30			W	4	2:40	7:40	14:00	21:00			S	4	4:05	9:50	15:20	22:00	
	Tu	5	3:10	8:05	14:35	21:30			Th	5	3:30	8:45	14:40	22:00	A		S	5	5:00	10:50	16:20	22:50	
S	W	6	4:10	9:00	15:30	22:40			F	6	4:30	9:50	15:45	23:10	☾		M	6	6:00	12:00	17:50	23:40	
☾	Th	7	5:05	10:20	16:30	. . .		☾	S	7	5:20	11:20	17:00	. . .	E		Tu	7	6:45	13:00	19:10	. . .	
			S to N.	N to S.	S to N.	N to S.					S to N.	N to S.	S to N.	N to S.					S to N.	N to S:	S to N.	N to S.	
	F	8	0:00	6:15	11:40	17:30		A	S	8	0:20	6:35	12:45	18:40			W	8	0:40	7:30	14:15	20:35	
	S	9	1:00	7:25	13:00	18:45			M	9	1:20	7:35	13:50	19:55			Th	9	1:30	8:10	15:10	21:40	
A	S	10	2:10	8:25	14:25	20:10		E	Tu	10	2:10	8:15	14:50	21:00			F	10	2:20	8:50	16:00	22:30	
	M	11	3:10	9:20	15:30	21:25			W	11	2:40	8:50	15:40	22:10			S	11	3:00	9:35	16:35	23:05	
	Tu	12	3:45	10:00	16:05	22:20			Th	12	3:15	9:30	16:20	23:00			S	12	3:35	10:15	17:10	23:40	
E	W	13	4:10	10:25	16:45	23:15			F	13	3:40	10:10	16:50	23:40	●		M	13	4:10	10:50	17:40	. . .	
	Th	14	4:40	10:50	17:15	23:50			S	14	4:15	10:40	17:30	. . .					N to S.	S to N.	N to S.	S to N.	
●	F	15	5:00	11:15	17:45	. . .					N to S.	S to N.	N to S.	S to N.	N		Tu	14	0:20	4:50	11:30	18:20	
			N to S.	S to N.	N to S.	S to N.		●	S	15	0:05	4:50	11:20	18:05			W	15	1:00	5:40	12:10	18:55	
	S	16	0:25	5:25	11:40	18:20			M	16	0:45	5:25	11:45	18:40			Th	16	1:40	6:30	12:50	19:35	
	S	17	0:50	5:55	12:05	18:50		N	Tu	17	1:20	6:00	12:20	19:20	P		F	17	2:10	7:30	13:35	20:20	
	M	18	1:25	6:25	12:35	19:30			W	18	2:00	6:35	13:00	20:00			S	18	2:55	8:40	14:35	21:00	
	Tu	19	2:05	7:00	13:15	20:10			Th	19	2:35	7:30	13:45	20:45			S	19	3:30	9:50	15:45	21:50	
N	W	20	2:40	7:25	13:50	21:00			F	20	3:20	8:40	14:30	21:35	☽	E	M	20	4:20	11:15	17:15	22:50	
	Th	21	3:40	8:25	14:50	22:00			S	21	4:20	9:45	15:30	22:50			Tu	21	5:30	12:30	18:40	. . .	
☽	F	22	4:50	9:40	16:10	23:10		☽ P	S	22	5:50	11:20	17:00	. . .					S to N.	N to S.	S to N.	N to S.	
	S	23	6:10	11:10	17:20	. . .					S to N.	N to S.	S to N.	N to S.			W	22	0:00	6:40	13:40	19:50	
			S to N.	N to S.	S to N.	N to S.			M	23	0:00	6:40	12:50	18:40			Th	23	1:10	7:45	14:45	21:00	
	S	24	0:35	7:15	13:00	18:40		E	Tu	24	1:00	7:25	14:00	20:10			F	24	2:00	8:35	15:25	22:00	
	M	25	1:40	8:00	14:10	20:00			W	25	1:50	8:10	14:55	21:10			S	25	2:50	9:10	16:05	22:45	
P	Tu	26	2:25	8:40	15:00	21:10			Th	26	2:30	8:50	15:40	22:10			S	26	3:30	9:50	16:50	23:25	
E	W	27	3:00	9:20	15:50	22:10			F	27	3:00	9:35	16:30	22:55	S		M	27	4:05	10:35	17:25	. . .	
	Th	28	3:30	9:55	16:30	23:00			S	28	3:35	10:10	17:10	23:35	○				N to S.	S to N.	N to S.	S to N.	
☾	F	29	4:00	10:35	17:20	23:40		○	S	29	4:20	10:55	17:50	. . .			Tu	28	0:00	4:50	11:20	18:00	
	S	30	4:35	11:15	18:00	. . .					N to S.	S to N.	N to S.	S to N.			W	29	0:40	5:30	12:00	18:40	
								S	M	30	0:20	5:00	11:40	18:25			Th	30	1:15	6:15	12:30	19:15	
									Tu	31	1:00	5:40	12:10	19:05									

set of the current, swirls and overfalls of greater magnitude and danger occur just to the northward of Ripple Rock. The water seems to boil and whirlpools are formed large enough to engulf a small vessel. Great trees with their roots and branches attached will be turned end over end and around and around. The currents in Seymour Narrows are quite irregular (see the results obtained by Lieut. Commander E. K. Moore, U. S. N., given on page 480), and mariners are advised, therefore, to be on hand a sufficient time before the tabulated times (say half an hour or more), in order to make sure of the desired slack water, in case the predictions happen to be too late. If bound to the northward a vessel should be on hand somewhat before the time given under "S to N" in the table, and if bound to the southward somewhat before the time given under "N to S" in the table. To those having good local knowledge it is usually possible to pass south for about an hour after the current begins to set southward; then avoiding the strength of the current, the last hour and a half of the south current may be used, that is, during the 1h 30m before the time given under "S to N." Strangers should never vary from the rule of passing either way at the slack-water period, taking care to select a time of slack water which will be followed by a favorable current.

SEYMOUR NARROWS (Discovery Passage), BRITISH COLUMBIA, 1904.

TIMES OF SLACK WATER.

JULY.							AUGUST.							SEPTEMBER.						
Moon.	Day of— W.	Mo.	Current turns from—				Moon.	Day of— W.	Mo.	Current turns from—				Moon.	Day of— W.	Mo.	Current turns from—			
			N to S.	S to N.	N to S.	S to N.				N to S.	S to N.	N to S.	S to N.				N to S.	S to N.	N to S.	S to N.
	F	1	1:45	7:10	13:10	19:50	E	M	1	2:10	8:30	14:40	20:20		Th	1	3:00	9:40	16:00	21:20
A	S	2	2:20	8:10	14:00	20:35		Tu	2	2:55	9:30	15:40	21:10	☾	F	2	3:50	10:45	17:20	22:25
	S	3	3:00	9:00	14:50	21:20		W	3	3:50	10:40	16:55	22:05		S	3	4:50	11:50	18:55	23:35
E	M	4	3:45	10:10	15:50	22:10	☾	Th	4	4:45	11:50	18:00	23:05	N	S	4	6:00	13:15	20:00	. .
☾	Tu	5	4:40	11:10	16:55	23:00		F	5	5:55	13:10	19:20	. . .				S to N.	N to S.	S to N.	N to S.
	W	6	5:40	12:35	18:40	. . .				S to N.	N to S.	S to N.	N to S.		M	5	0:50	7:00	14:20	21:10
			S to N.	N to S.	S to N.	N to S.		S	6	0:15	6:50	14:15	20:30		Tu	6	1:50	8:00	15:05	21:50
	Th	7	0:00	6:40	13:45	20:20		S	7	1:25	7:40	15:10	21:25		W	7	2:50	9:00	15:40	22:10
	F	8	1:10	7:40	14:55	21:20	N	M	8	2:25	8:30	15:50	22:10		Th	8	3:45	9:50	16:15	22:35
	S	9	2:00	8:30	15:40	22:00		Tu	9	3:10	9:20	16:20	22:40	P	F	9	4:35	10:45	16:50	23:00
	S	10	2:40	9:05	16:20	22:40		W	10	3:50	10:00	16:55	23:15	●	S	10	5:20	11:25	17:20	23:20
N	M	11	3:30	9:40	17:00	23:20	●	Th	11	4:30	10:50	17:35	23:50	E	S	11	6:00	12:15	17:50	23:50
●	Tu	12	4:05	10:25	17:25	23:55	P	F	12	5:20	11:35	18:05	. . .		M	12	7:00	13:10	18:35	. . .
	W	13	5:00	11:10	17:55	. . .				N to S.	S to N.	N to S.	S to N.				N to S.	S to N.	N to S.	S to N.
			N to S.	S to N.	N to S.	S to N.		S	13	0:20	6:15	12:20	18:45		Tu	13	0:25	7:50	14:10	19:25
P	Th	14	0:30	5:35	11:50	18:25	E	S	14	0:55	7:10	13:10	19:10		W	14	1:10	8:50	15:00	20:15
	F	15	1:10	6:20	12:35	19:15		M	15	1:30	8:15	14:10	20:00		Th	15	2:10	9:50	16:10	21:20
	S	16	1:50	7:40	13:25	20:00		Tu	16	2:10	9:20	15:20	20:45	☽	F	16	3:20	11:00	17:40	22:25
E	S	17	2:25	8:40	14:20	20:40	☽	W	17	3:15	10:30	16:40	21:45	S	S	17	4:30	12:00	19:00	23:30
	M	18	3:00	9:55	15:30	21:30		Th	18	4:20	11:35	18:10	23:00		S	18	5:40	13:00	20:10	. . .
☽	Tu	19	4:00	11:00	17:00	22:30		F	19	5:35	12:30	19:35	. . .				S to N.	N to S.	S to N.	N to S.
	W	20	5:00	12:10	18:20	23:45				S to N.	N to S.	S to N.	N to S.		M	19	0:35	7:00	14:05	21:10
	Th	21	6:10	13:25	19:50	. . .	S	S	20	0:05	6:40	13:40	20:40		Tu	20	1:40	8:10	15:00	21:50
			S to N.	N to S.	S to N.	N to S.		S	21	1:10	7:40	14:40	21:35		W	21	2:50	9:10	15:40	22:20
	F	22	0:40	7:05	14:20	20:55		M	22	2:20	8:35	15:25	22:20	A	Th	22	3:50	10:05	16:20	22:50
	S	23	1:40	8:00	15:10	21:40		Tu	23	3:10	9:20	16:00	22:50		F	23	4:40	11:00	16:55	23:10
S	S	24	2:35	8:50	15:50	22:25		W	24	3:50	10:00	16:30	23:15	○	S	24	5:20	11:40	17:20	23:35
	M	25	3:20	9:40	16:30	23:00	○	Th	25	4:35	10:45	17:00	23:35	E	S	25	6:00	12:15	17:50	. . .
	Tu	26	4:00	10:20	17:05	23:35	A	F	26	5:15	11:20	17:30	. . .				N to S.	S to N.	N to S.	S to N.
○	W	27	4:45	10:55	17:35	. . .				N to S.	S to N.	N to S.	S to N.		M	26	0:00	6:30	12:55	18:15
			N to S.	S to N.	N to S.	S to N.		S	27	0:00	5:50	12:00	18:10		Tu	27	0:30	7:05	13:25	18:40
	Th	28	0:00	5:20	11:30	18:05	E	S	28	0:20	6:30	12:40	18:40		W	28	0:55	7:40	14:00	19:00
	F	29	0:30	5:50	12:10	18:40		M	29	0:50	7:15	13:25	19:10		Th	29	1:30	8:15	14:50	19:30
A	S	30	1:00	6:35	13:00	19:10		Tu	30	1:30	8:00	14:15	19:50		F	30	2:00	9:00	15:55	20:10
	S	31	1:30	7:35	13:50	19:50		W	31	2:15	8:40	15:00	20:30							

This table gives the predicted 120th meridian times of Middle Slack Water; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.), all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m. The heading "N to S" in the body of the table means that the current which had been setting toward the north before the time of slack water will begin to set southward shortly after that time; and "S to N" means exactly the reverse. Symbols and abbreviations relating to the moon: ●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator (not to be confounded with the compass directions over the times of slack); A, P, moon in apogee or perigee. The times in heavy-faced type are those which are most likely to be followed by a comparatively weak current. At weakest neap tides the passage may be made at all stages of the current. The current at spring tides in Seymour Narrows attains an estimated velocity of 12 miles or more per hour; and when it is setting strong to the southward heavy and dangerous swirls and overfalls form along the south shore of Maude Island, and generally, though in a somewhat lessened degree, over the surface of the channel between Maude Island and Race Point. With a strong northerly

SEYMOUR NARROWS (Discovery Passage), BRITISH COLUMBIA, 1904.

TIMES OF SLACK WATER.

OCTOBER.								NOVEMBER.								DECEMBER.							
Moon.	Day of W.	Day of Mo.	Current turns from—					Moon.	Day of W.	Day of Mo.	Current turns from—					Moon.	Day of W.	Day of Mo.	Current turns from—				
			N to S.	S to N.	N to S.	S to N.					N to S.	S to N.	N to S.	S to N.					S to N.	N to S.	S to N.	N to S.
N	S	1	2:45	9:50	16:50	21:00			Tu	1	4:40	11:50	18:45	. . .		E	Th	1	0:00	5:55	12:20	19:00
C	S	2	3:30	11:10	17:55	22:10					S to N.	N to S.	S to N.	N to S.		P	F	2	1:20	7:20	13:20	19:40
	M	3	4:40	12:30	19:00	. . .			W	2	0:00	6:00	13:05	19:40			S	3	2:30	8:45	14:00	20:20
			S to N.	N to S.	S to N.	N to S.			Th	3	1:30	7:20	14:05	20:20			S	4	3:20	9:40	14:40	21:00
	Tu	4	0:00	5:55	14:00	19:50		E	F	4	2:40	8:40	14:40	20:55			M	5	4:00	10:40	15:20	21:50
	W	5	1:40	7:20	15:00	20:35		P	S	5	3:25	9:50	15:15	21:30		●	Tu	6	4:50	11:20	16:05	22:40
	Th	6	2:50	8:40	15:40	21:20			S	6	4:15	10:40	15:50	22:10			W	7	5:30	12:05	16:35	23:20
P	F	7	3:50	10:00	16:20	22:00		●	M	7	5:00	11:20	16:20	23:00		S	Th	8	6:10	12:50	17:35	. . .
E	S	8	4:40	11:00	17:00	22:40			Tu	8	5:40	12:05	16:55	23:40					N to S.	S to N.	N to S.	S to N.
●	S	9	5:20	11:50	17:35	23:25			W	9	6:25	12:50	17:50	. . .			F	9	0:00	7:00	13:30	18:25
	M	10	6:05	12:30	18:05	. . .					N to S.	S to N.	N to S.	S to N.			S	10	0:40	7:35	14:00	19:25
			N to S.	S to N.	N to S.	S to N.		S	Th	10	0:20	7:10	13:40	18:40			S	11	1:30	8:15	14:50	20:35
	Tu	11	0:00	6:45	13:20	18:40			F	11	1:05	8:00	14:30	19:20			M	12	2:30	9:00	15:40	21:40
	W	12	0:40	7:25	14:00	19:20			S	12	1:40	8:50	15:20	20:20			Tu	13	3:20	9:50	16:30	22:50
	Th	13	1:30	8:20	15:00	19:50			S	13	2:30	9:45	16:15	21:30		☽ A	W	14	4:30	10:45	17:20	. . .
S	F	14	2:20	9:10	15:40	20:45		☽	M	14	3:30	11:00	17:20	22:55					S to N.	N to S.	S to N.	N to S.
☽	S	15	3:15	10:20	16:50	21:50			Tu	15	4:30	12:00	18:20	. . .		E	Th	15	0:00	6:10	11:50	18:20
	S	16	4:10	11:30	18:00	23:10					S to N.	N to S.	S to N.	N to S.			F	16	1:15	7:40	12:40	19:10
	M	17	5:15	12:45	19:00	. . .		A	W	16	0:05	6:00	13:00	19:15			S	17	2:25	8:50	13:40	20:10
			S to N.	N to S.	S to N.	N to S.			Th	17	1:30	7:30	14:00	20:20			S	18	3:20	9:35	14:20	20:40
	Tu	18	0:40	6:30	14:00	20:15		E	F	18	2:40	8:50	14:35	20:50			M	19	3:55	10:15	15:00	21:10
	W	19	2:10	7:55	15:00	21:10			S	19	3:30	10:00	15:05	21:30			Tu	20	4:30	10:50	15:40	21:50
A	Th	20	3:10	9:00	15:40	21:50			S	20	4:10	10:50	15:35	22:00			W	21	5:00	11:25	16:15	22:30
E	F	21	3:55	10:10	16:10	22:15			M	21	4:50	11:25	16:00	22:30		☾ N	Th	22	5:25	11:55	16:50	23:00
	S	22	4:30	11:00	16:35	22:40		☾	Tu	22	5:20	11:55	16:40	23:00			F	23	5:50	12:30	17:30	23:50
	S	23	5:00	11:40	17:00	23:10			W	23	5:50	12:25	17:10	23:40			S	24	6:20	13:05	18:20	. . .
☾	M	24	5:30	12:10	17:20	23:30			Th	24	6:25	13:00	17:40	. . .					N to S.	S to N.	N to S.	S to N.
	Tu	25	6:10	12:40	17:45	. . .					N to S.	S to N.	N to S.	S to N.			S	25	0:30	7:05	13:40	19:10
			N to S.	S to N.	N to S.	S to N.		N	F	25	0:10	7:05	13:40	18:20			M	26	1:20	7:50	14:15	20:25
	W	26	0:00	6:40	13:10	18:10			S	26	0:45	7:45	14:15	19:00		P	Tu	27	2:10	8:30	14:50	21:40
	Th	27	0:25	7:20	13:50	18:50			S	27	1:25	8:20	15:00	20:00			W	28	3:15	9:20	15:50	22:50
	F	28	1:00	7:55	14:30	19:20			M	28	2:10	9:10	15:50	21:20		E ☾	Th	29	4:40	10:25	16:50	. . .
N	S	29	1:40	8:40	15:10	20:00		☾	Tu	29	3:00	10:10	17:10	22:45					S to N.	N to S.	S to N.	N to S.
	S	30	2:25	9:20	16:10	21:00			W	30	4:20	11:25	18:15	. . .			F	30	0:00	6:10	11:30	17:50
☾	M	31	3:20	10:30	17:20	22:25											S	31	1:10	7:30	12:35	19:50

set of the current, swirls and overfalls of greater magnitude and danger occur just to the northward of Ripple Rock. The water seems to boil and whirlpools are formed large enough to engulf a small vessel. Great trees with their roots and branches attached will be turned end over end and around and around. The currents in Seymour Narrows are quite irregular (see the results obtained by Lieut. Commander E. K. Moore, U. S. N., given on page 480), and mariners are advised, therefore, to be on hand a sufficient time before the tabulated times (say half an hour or more), in order to make sure of the desired slack water in case the predictions happen to be too late. If bound to the northward a vessel should be on hand somewhat before the time given under "S to N" in the table, and if bound to the southward somewhat before the time given under "N to S" in the table. To those having good local knowledge it is usually possible to pass south for about an hour after the current begins to set southward; then avoiding the strength of the current, the last hour and a half of the south current may be used—that is, during the $1^h\ 30^m$ before the time given under "S to N." Strangers should never vary from the rule of passing either way at the slack-water period, taking care to select a time of slack water which will be followed by a favorable current.

SERGIUS NARROWS (Peril Strait), ALASKA, 1904.

TIMES OF SLACK WATER.

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
	JANUARY.					
			S to N.	N to S.	S to N.	N to S.
	F	1	3:20	9:30	15:40	21:50
N ○	S	2	4:05	10:10	16:20	22:30
	S	3	4:50	10:50	17:10	23:15
P	M	4	5:40	11:30	18:00	23:50
	Tu	5	6:20	12:10	18:45	. . .
			N to S.	S to N.	N to S.	S to N.
	W	6	0:35	7:05	13:00	19:30
	Th	7	1:20	8:00	13:50	20:20
E	F	8	2:20	8:50	14:50	21:20
☾	S	9	3:25	10:00	16:00	22:30
	S	10	4:45	11:00	17:20	23:35
	M	11	6:00	12:10	18:40	. . .
			S to N.	N to S.	S to N.	N to S.
	Tu	12	0:50	7:20	13:20	19:45
	W	13	2:00	8:10	14:25	20:35
	Th	14	2:45	9:00	15:10	21:15
S	F	15	3:30	9:35	15:45	21:55
	S	16	4:05	10:10	16:20	22:30
●	S	17	4:40	10:40	17:00	23:00
	M	18	5:20	11:15	17:30	23:30
A	Tu	19	5:50	11:45	18:05	. . .
			N to S.	S to N.	N to S.	S to N.
	W	20	0:00	6:25	12:15	18:40
	Th	21	0:30	7:00	12:50	19:10
E	F	22	1:05	7:30	13:20	19:50
	S	23	1:40	8:10	14:10	20:35
	S	24	2:40	9:00	15:00	21:30
☽	M	25	3:30	10:00	16:10	22:35
	Tu	26	4:50	11:00	17:20	23:40
	W	27	6:00	12:15	18:40	. . .
			S to N.	N to S.	S to N.	N to S.
	Th	28	0:45	7:20	13:30	19:50
N	F	29	2:00	8:20	14:40	20:50
	S	30	3:05	9:10	15:30	21:35
	S	31	3:50	10:00	16:10	22:20

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
	FEBRUARY.					
			S to N.	N to S.	S to N.	N to S.
○ P	M	1	4:40	10:40	17:00	23:00
	Tu	2	5:25	11:20	17:40	23:40
	W	3	6:05	12:00	18:25	. . .
			N to S.	S to N.	N to S.	S to N.
E	Th	4	0:15	6:50	12:40	19:05
	F	5	1:00	7:30	13:25	19:55
	S	6	1:45	8:20	14:20	20:50
	S	7	2:50	9:20	15:25	21:55
☾	M	8	4:00	10:30	16:50	23:05
	Tu	9	5:20	11:40	17:50	. . .
			S to N.	N to S.	S to N.	N to S.
	W	10	0:15	6:40	12:50	19:15
S	Th	11	1:20	7:50	14:00	20:15
	F	12	2:25	8:40	14:50	21:00
	S	13	3:05	9:10	15:25	21:30
	S	14	3:45	9:50	16:00	22:10
A	M	15	4:20	10:25	16:30	22:40
●	Tu	16	5:00	11:00	17:10	23:10
	W	17	5:25	11:20	17:40	23:40
E	Th	18	6:00	11:50	18:15	. . .
			N to S.	S to N.	N to S.	S to N.
	F	19	0:10	6:30	12:20	18:45
	S	20	0:35	7:00	12:55	19:25
	S	21	1:10	7:40	13:30	20:00
	M	22	2:00	8:25	14:25	20:50
	Tu	23	2:50	9:20	15:25	21:50
☽	W	24	4:00	10:30	16:50	23:05
	Th	25	5:20	11:40	18:00	. . .
			S to N.	N to S.	S to N.	N to S.
N	F	26	0:20	6:45	13:00	19:30
	S	27	1:40	8:00	14:20	20:30
	S	28	2:45	9:00	15:10	21:20
	M	29	3:40	9:40	15:55	22:05

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
	MARCH.					
			S to N.	N to S.	S to N.	N to S.
P ○	Tu	1	4:20	10:30	16:40	22:40
	W	2	5:05	11:05	17:20	23:20
E	Th	3	5:40	11:40	18:05	. . .
			N to S.	S to N.	N to S.	S to N.
	F	4	0:00	6:25	12:15	18:45
	S	5	0:40	7:10	13:00	19:30
	S	6	1:25	8:00	13:50	20:20
	M	7	2:10	8:50	14:50	21:20
☾	Tu	8	3:25	9:50	16:00	22:25
S	W	9	4:40	11:00	17:20	23:40
	Th	10	6:00	12:15	18:40	. . .
			S to N.	N to S.	S to N.	N to S.
	F	11	0:45	7:10	13:25	19:50
	S	12	1:50	8:10	14:25	20:35
A	S	13	2:40	8:50	15:00	21:10
	M	14	3:20	9:30	15:40	21:50
	Tu	15	3:50	10:00	16:10	22:20
●	W	16	4:30	10:30	16:40	22:40
E	Th	17	5:00	11:00	17:15	23:10
	F	18	5:35	11:30	17:50	23:40
	S	19	6:00	11:50	18:20	. . .
			N to S.	S to N.	N to S.	S to N.
	S	20	0:10	6:35	12:30	19:00
	M	21	0:45	7:15	13:05	19:35
	Tu	22	1:30	8:00	13:50	20:25
	W	23	2:25	9:00	15:00	21:30
N ☽	Th	24	3:40	10:00	16:10	22:40
	F	25	5:00	11:20	17:40	. . .
			S to N.	N to S.	S to N.	N to S.
	S	26	0:00	6:20	12:40	19:00
	S	27	1:20	7:50	14:00	20:15
	M	28	2:30	8:40	14:55	21:00
P	Tu	29	3:20	9:30	15:40	21:50
E	W	30	4:00	10:10	16:20	22:30
○	Th	31	4:40	10:50	17:00	23:00

This table gives the predicted 135th meridian times of Middle Slack Water; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a. m.) all greater are in the afternoon (p. m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m. The heading "N to S" in the body of the table means that the current which had been setting toward the north before the time of slack water will begin to set southward shortly after that time; and "S to N" means exactly the reverse. Symbols and abbreviations relating to the moon: ●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator (not to be confounded with the compass directions over the times of slack); A, P, moon in apogee or perigee. Slack Water usually lasts from five to twenty minutes; those slacks which occur under the heading "N to S" are locally known as "High Water Slack," and those under "S to N" as "Low Water Slack," although high and low waters do not occur until about two hours later. The times in heavy-faced type are those which are most likely to be followed by a comparatively weak current. At weakest neap tides those with good local knowledge pass through Sergius Narrows at all stages of the current. The current at spring tides in Sergius Narrows attains an estimated velocity of 10 to 12 miles per hour in the narrowest and worst part of the Narrows, between Eureka Ledge and the north shore. When the current is running strong

SERGIUS NARROWS (Peril Strait), ALASKA, 1904.

TIMES OF SLACK WATER.

APRIL.

Moon.	Day of— W.	Mo.	Current turns from—			
			S to N.	N to S.	S to N.	N to S.
	F	1	5:25	11:20	17:40	23:40
	S	2	6:05	11:55	18:20	. . .
			N to S.	S to N.	N to S.	S to N.
	S	3	0:15	6:45	12:40	19:05
	M	4	1:00	7:30	13:20	19:55
	Tu	5	1:40	8:20	14:15	20:45
S	W	6	2:50	9:15	15:20	21:45
☾	Th	7	4:00	10:20	16:30	22:50
	F	8	5:10	11:30	17:50	. . .
			S to N.	N to S.	S to N.	N to S.
	S	9	0:05	6:25	12:30	19:00
A	S	10	1:00	7:30	13:40	20:00
	M	11	2:10	8:20	14:30	20:40
	Tu	12	2:50	9:00	15:10	21:15
E	W	13	3:25	9:30	15:40	21:50
	Th	14	4:00	10:05	16:10	22:20
●	F	15	4:30	10:40	16:40	22:50
	S	16	5:10	11:05	17:20	23:20
	S	17	5:40	11:40	18:00	23:50
	M	18	6:20	12:10	18:40	. . .
			N to S.	S to N.	N to S.	S to N.
	Tu	19	0:30	7:00	12:50	19:20
N	W	20	1:10	7:40	13:35	20:10
	Th	21	2:00	8:40	14:35	21:10
☽	F	22	3:10	9:45	15:50	22:20
	S	23	4:30	11:00	17:20	23:40
	S	24	6:00	12:20	18:40	. . .
			S to N.	N to S.	S to N.	N to S.
	M	25	1:00	7:25	13:40	20:00
P E	Tu	26	2:10	8:20	14:40	20:50
	W	27	3:00	9:10	15:25	21:30
	Th	28	3:40	9:50	16:00	22:10
○	F	29	4:30	10:30	16:45	22:50
	S	30	5:05	11:05	17:20	23:20

MAY.

Moon.	Day of— W.	Mo.	Current turns from—			
			S to N.	N to S.	S to N.	N to S.
	S	1	5:40	11:40	18:00	23:55
	M	2	6:25	12:15	18:40	. . .
			N to S.	S to N.	N to S.	S to N.
S	Tu	3	0:30	7:00	13:00	19:25
	W	4	1:20	7:50	13:40	20:15
	Th	5	2:10	8:50	14:40	21:10
	F	6	3:10	9:30	15:50	22:10
☾	S	7	4:20	10:40	17:00	23:10
A	S	8	5:30	11:40	18:10	. . .
			S to N.	N to S.	S to N.	N to S.
	M	9	0:20	6:40	12:50	19:10
E	Tu	10	1:20	7:40	13:45	20:00
	W	11	2:10	8:30	14:40	20:50
	Th	12	2:55	9:05	15:10	21:20
	F	13	3:30	9:40	15:50	22:00
	S	14	4:05	10:10	16:20	22:30
●	S	15	4:40	10:45	17:00	23:00
	M	16	5:20	11:20	17:40	23:40
N	Tu	17	6:00	11:50	18:20	. . .
			N to S.	S to N.	N to S.	S to N.
	W	18	0:10	6:45	12:35	19:00
	Th	19	1:00	7:30	13:20	19:55
	F	20	1:45	8:25	14:20	20:55
	S	21	3:00	9:30	15:35	22:00
☽ P	S	22	4:10	10:40	17:00	23:15
	M	23	5:40	12:00	18:25	. . .
			S to N.	N to S.	S to N.	N to S.
E	Tu	24	0:30	7:00	13:10	19:30
	W	25	1:50	8:00	14:20	20:30
	Th	26	2:40	8:50	15:05	21:10
	F	27	3:30	9:40	15:40	21:55
○	S	28	4:05	10:10	16:20	22:30
	S	29	4:50	10:50	17:05	23:05
S	M	30	5:25	11:20	17:40	23:40
	Tu	31	6:05	11:55	18:20	. . .

JUNE.

Moon.	Day of— W.	Mo.	Current turns from—			
			N to S.	S to N.	N to S.	S to N.
	W	1	0:10	6:35	12:30	19:00
	Th	2	1:00	7:20	13:15	19:40
	F	3	1:30	8:05	14:00	20:30
	S	4	2:30	9:00	15:00	21:25
A ☾	S	5	3:30	9:50	16:00	22:20
	M	6	4:30	10:50	17:00	23:15
E	Tu	7	5:40	11:40	18:00	. . .
			S to N.	N to S.	S to N.	N to S.
	W	8	0:20	6:40	12:50	19:20
	Th	9	1:20	7:50	13:55	20:10
	F	10	2:20	8:30	14:40	20:50
	S	11	3:00	9:10	15:25	21:30
	S	12	3:40	9:50	16:00	22:10
●	M	13	4:20	10:30	16:40	22:50
N	Tu	14	5:10	11:10	17:25	23:20
	W	15	5:50	11:40	18:10	. . .
			N to S.	S to N.	N to S.	S to N.
	Th	16	0:00	6:30	12:25	18:50
P	F	17	0:40	7:20	13:05	19:40
	S	18	1:30	8:05	14:00	20:35
	S	19	2:35	9:10	15:10	21:40
☽ E	M	20	3:50	10:20	16:25	22:50
	Tu	21	5:10	11:30	17:50	. . .
			S to N.	N to S.	S to N.	N to S.
	W	22	0:05	6:25	12:40	19:00
	Th	23	1:10	7:40	13:55	20:10
	F	24	2:20	8:35	14:15	21:00
	S	25	3:10	9:15	15:30	21:40
	S	26	3:50	10:00	16:10	22:20
S ○	M	27	4:30	10:30	16:40	22:50
	Tu	28	5:10	11:10	17:25	23:20
	W	29	5:40	11:40	18:00	23:50
	Th	30	6:20	12:10	18:40	. . .

It is not safe for any vessel, especially a large one, to pass from below Francis Rocks to above Liesnoi Shoal. During spring tide it is recommended to pass through only at or near the time of middle slack. The water at the strength of the current is very much disturbed, heaving up over the ledge in the middle and boiling and swirling in the channel, especially at the end where the water is passing out. The channel is so narrow and the current so variable in direction that if a vessel gets a sheer she may be carried on the reef or shore before she can be straightened out. The currents in Sergius Narrows are quite irregular (see the results obtained by Lieut. Commander E. K. Moore, U. S. N., given on page 481), and mariners are advised, therefore, to be on hand a sufficient time before the tabulated times (say half an hour or more), in order to make sure of the desired slack water, in case the predictions happen to be too late. If bound to the northward, a vessel should be on hand somewhat before the time given under "S to N" in the table, and if bound to the southward, somewhat before the time given under "N to S" in the table. There is about half an hour on each side of middle slack when any ordinary powered vessel can pass in perfect safety, especially if going with the current. Strangers should never vary from the rule of passing either way at the slack-water period, taking care to select a time of slack water which will be followed by a favorable current.

SERGIUS NARROWS (Peril Strait), ALASKA, 1904.

TIMES OF SLACK WATER.

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
JULY.						
			N to S.	S to N.	N to S.	S to N.
	F	1	**0:30**	6:55	12:50	**19:15**
A	S	2	**1:05**	7:35	13:25	**19:55**
	S	3	**1:40**	8:15	14:10	**20:40**
E	M	4	**2:35**	**9:00**	15:00	**21:30**
☾	Tu	5	**3:40**	**9:55**	**16:10**	**22:20**
	W	6	**4:30**	**10:55**	**17:10**	**23:25**
	Th	7	**5:50**	**12:00**	**18:25**	. . .
			S to N.	N to S.	S to N.	N to S.
	F	8	**0:30**	**7:00**	**13:05**	**19:30**
	S	9	1:40	**8:00**	**14:10**	**20:20**
	S	10	2:40	8:50	**15:00**	**21:10**
N	M	11	3:25	9:35	**15:45**	21:50
●	Tu	12	4:10	10:10	**16:25**	22:30
	W	13	4:50	10:50	**17:10**	23:10
P	Th	14	5:40	11:30	18:00	23:50
	F	15	6:20	12:10	18:40	. . .
			N to S.	S to N.	N to S.	S to N.
	S	16	0:30	7:00	12:55	19:30
E	**S**	17	1:20	7:50	13:40	20:20
	M	18	2:10	8:50	14:45	21:15
☽	Tu	19	**3:20**	**9:50**	16:00	22:20
	W	20	**4:30**	**11:00**	17:15	23:40
	Th	21	**6:00**	**12:10**	**18:40**	. . .
			S to N.	N to S.	S to N.	N to S.
	F	22	0:50	**7:10**	**13:30**	**19:50**
	S	23	2:00	**8:10**	**14:30**	**20:40**
S	**S**	24	2:50	9:00	**15:10**	**21:20**
	M	25	3:35	9:40	**15:50**	**22:00**
	Tu	26	4:10	10:20	**16:25**	**22:30**
○	W	27	4:45	10:50	**17:05**	**23:10**
	Th	28	5:25	11:20	**17:40**	**23:35**
	F	29	6:00	11:50	**18:10**	. . .
			N to S.	S to N.	N to S.	S to N.
A	S	30	**0:05**	6:30	12:20	**18:45**
E	**S**	31	**0:35**	7:00	12:55	**19:20**

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
AUGUST.						
			N to S.	S to N.	N to S.	S to N.
	M	1	**1:15**	7:40	13:30	**20:00**
	Tu	2	**1:50**	**8:25**	14:20	**20:40**
	W	3	**2:55**	**9:10**	**15:20**	**21:40**
☾	Th	4	**3:45**	**10:10**	**16:20**	**22:40**
	F	5	**4:50**	**11:10**	**17:25**	23:50
	S	6	**6:10**	**12:20**	**18:40**	. . .
			S to N.	N to S.	S to N.	N to S.
	S	7	1:00	**7:30**	**13:40**	**20:00**
N	M	8	2:15	8:25	**14:40**	**20:50**
	Tu	9	3:10	9:10	**15:30**	21:40
	W	10	3:50	10:00	16:10	22:20
●	Th	11	4:40	10:40	17:00	23:00
P	F	12	5:20	11:20	17:40	23:40
	S	13	6:05	12:00	18:20	. . .
			N to S.	S to N.	N to S.	S to N.
E	**S**	14	0:15	6:45	12:35	19:10
	M	15	1:00	7:30	13:20	19:55
	Tu	16	1:45	8:20	14:20	20:50
☽	W	17	2:50	**9:20**	15:30	21:55
	Th	18	**4:00**	**10:40**	**16:50**	23:10
	F	19	**5:20**	**11:40**	**18:00**	. . .
			S to N.	N to S.	S to N.	N to S.
S	S	20	0:20	**6:40**	**12:55**	**19:20**
	S	21	1:35	**7:50**	**14:10**	**20:20**
	M	22	2:30	8:45	**14:55**	**21:05**
	Tu	23	3:15	9:20	**15:30**	**21:40**
	W	24	3:50	10:00	**16:05**	**22:20**
○	Th	25	4:30	10:30	**16:40**	**22:40**
A	F	26	5:00	11:00	**17:10**	23:10
	S	27	5:30	11:30	17:40	23:40
E	**S**	28	6:00	11:55	18:15	. . .
			N to S.	S to N.	N to S.	S to N.
	M	29	0:10	6:30	12:25	18:50
	Tu	30	0:40	7:10	13:00	19:25
	W	31	**1:20**	**7:40**	**13:35**	20:05

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
SEPTEMBER.						
			N to S.	S to N.	N to S.	S to N.
	Th	1	**2:00**	**8:30**	**14:30**	21:00
☾	F	2	**3:00**	**9:25**	**15:35**	22:00
	S	3	**4:10**	**10:40**	**16:50**	23:10
N	**S**	4	**5:30**	**11:45**	**18:10**	. . .
			S to N.	N to S.	S to N.	N to S.
	M	5	0:30	**6:50**	**13:10**	**19:30**
	Tu	6	1:50	8:00	**14:25**	**20:35**
	W	7	2:45	9:00	**15:15**	21:20
	Th	8	3:40	9:45	16:00	22:10
P	F	9	4:20	10:25	16:40	22:40
● E	S	10	5:05	11:05	17:20	23:20
	S	11	5:45	11:40	18:05	. . .
			N to S.	S to N.	N to S.	S to N.
	M	12	0:00	6:25	12:15	18:50
	Tu	13	0:40	7:10	13:00	19:30
	W	14	1:25	7:55	13:50	20:20
	Th	15	2:20	**9:00**	**14:55**	21:20
☽	F	16	**3:30**	**10:00**	**16:10**	22:35
S	S	17	**4:50**	**11:10**	**17:30**	**23:50**
	S	18	**6:10**	**12:20**	**18:45**	. . .
			S to N.	N to S.	S to N.	N to S.
	M	19	**1:00**	**7:30**	**13:30**	**19:50**
	Tu	20	**2:00**	8:20	**14:30**	**20:40**
	W	21	2:50	9:00	**15:10**	**21:15**
A	Th	22	3:25	9:30	**15:40**	**21:50**
	F	23	4:00	10:10	16:10	22:20
○ E	S	24	4:30	10:35	16:45	22:50
	S	25	5:05	11:05	17:20	23:20
	M	26	5:35	11:30	17:50	23:40
	Tu	27	6:10	12:00	18:20	. . .
			N to S.	S to N.	N to S.	S to N.
	W	28	0:15	**6:40**	12:30	19:00
	Th	29	1:00	**7:20**	**13:10**	19:40
	F	30	1:30	**8:05**	**14:00**	20:25

This table gives the predicted 135th meridian times of Middle Slack Water; 0^h is midnight, 12^h is noon; all hours less than 12 are in the forenoon (a.m.), all greater are in the afternoon (p.m.) and when diminished by 12 give the times after noon; for instance, 15:42 is 3:42 p. m. The heading "N to S" in the body of the table means that the current which had been setting toward the north before the time of slack water will begin to set southward shortly after that time; and "S to N" means exactly the reverse. Symbols and abbreviations relating to the moon: ●, new moon; ☽, 1st quar.; ○, full moon; ☾, 3d quar.; E, moon on the equator; N, S, moon farthest north or south of the equator (not to be confounded with the compass directions over the times of slack); A, P, moon in apogee or perigee. Slack water usually lasts from five to twenty minutes; those slacks which occur under the heading "N to S" are locally known as "High Water Slack," and those under "S to N" as "Low Water Slack," although high and low waters do not occur until about two hours later. The times in heavy-faced type are those which are most likely to be followed by a comparatively weak current. At weakest neap tides those with good local knowledge pass through Sergius Narrows at all stages of the current. The current at spring tides in Sergius Narrows attains an estimated velocity of 10 to 12 miles per hour in the narrowest and worst part of the Narrows, between Eureka Ledge and the north shore. When the current is running strong

SERGIUS NARROWS (Peril Strait), ALASKA, 1904.

TIMES OF SLACK WATER.

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
			OCTOBER.			
			N to S.	S to N.	N to S.	S to N.
N	S	1	2:25	9:00	15:00	21:30
☾	S	2	3:40	10:10	16:20	22:40
	M	3	5:00	11:20	17:40	. . .
			S to N.	N to S.	S to N.	N to S.
	Tu	4	0:00	6:25	12:50	19:10
	W	5	1:20	7:50	14:00	20:15
	Th	6	2:30	8:45	14:55	21:00
P	F	7	3:20	9:25	15:40	21:50
E ●	S	8	4:00	10:10	16:20	22:25
	S	9	4:40	10:50	17:00	23:00
	M	10	5:30	11:20	17:40	23:40
	Tu	11	6:10	12:00	18:25	. . .
			N to S.	S to N.	N to S.	S to N.
	W	12	0:10	6:50	12:40	19:10
	Th	13	1:00	7:35	13:25	20:00
S	F	14	1:50	8:30	14:25	20:55
☽	S	15	3:00	9:30	15:35	22:00
	S	16	4:10	10:40	16:50	23:10
	M	17	5:30	11:40	18:00	. . .
			S to N.	N to S.	S to N.	N to S.
	Tu	18	0:20	6:40	12:50	19:15
	W	19	1:15	7:45	13:50	20:10
A	Th	20	2:20	8:30	14:40	20:50
E	F	21	3:00	9:05	15:20	21:20
	S	22	3:30	9:40	15:45	21:55
	S	23	4:00	10:10	16:15	22:25
○	M	24	4:40	10:40	16:55	22:55
	Tu	25	5:10	11:10	17:25	23:25
	W	26	5:40	11:40	18:00	23:55
	Th	27	6:20	12:10	18:40	. . .
			N to S.	S to N.	N to S.	S to N.
	F	28	0:30	7:00	12:50	19:20
N	S	29	1:15	7:40	13:40	20:10
	S	30	2:00	8:40	14:40	21:15
☾	M	31	3:15	9:45	15:50	22:20

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
			NOVEMBER.			
			N to S.	S to N.	N to S.	S to N.
	Tu	1	4:30	11:00	17:10	23:40
	W	2	6:00	12:15	18:40	. . .
			S to N.	N to S.	S to N.	N to S.
	Th	3	0:55	7:20	13:35	19:50
E	F	4	2:10	8:20	14:40	20:50
P	S	5	3:00	9:10	15:20	21:30
	S	6	3:40	9:50	16:00	22:10
●	M	7	4:25	10:30	16:45	22:50
	Tu	8	5:10	11:10	17:25	23:20
	W	9	5:50	11:40	18:10	. . .
			N to S.	S to N.	N to S.	S to N.
S	Th	10	0:00	6:30	12:20	18:50
	F	11	0:40	7:15	13:00	19:35
	S	12	1:30	8:00	13:50	20:20
	S	13	2:20	9:00	14:55	21:20
☽	M	14	3:30	9:50	16:00	22:20
	Tu	15	4:30	10:55	17:10	23:25
A	W	16	5:45	12:00	18:20	. . .
			S to N.	N to S.	S to N.	N to S.
	Th	17	0:25	6:55	13:00	19:20
E	F	18	1:25	7:50	14:00	20:15
	S	19	2:20	8:35	14:40	20:50
	S	20	3:00	9:10	15:20	21:25
	M	21	3:40	9:45	15:50	22:00
○	Tu	22	4:10	10:20	16:30	22:30
	W	23	4:50	10:50	17:10	23:10
	Th	24	5:25	11:20	17:40	23:40
N	F	25	6:05	12:00	18:25	. . .
			N to S.	S to N.	N to S.	S to N.
	S	26	0:20	6:50	12:35	19:05
	S	27	1:00	7:30	13:20	19:55
	M	28	1:45	8:25	14:25	20:50
☾	Tu	29	2:50	9:25	15:35	22:00
	W	30	4:10	10:40	16:50	23:10

Moon.	Day of— W.	Day of— Mo.	Current turns from—			
			DECEMBER.			
			N to S.	S to N.	N to S.	S to N.
E	Th	1	5:30	11:50	18:10	. . .
			S to N.	N to S.	S to N.	N to S
P	F	2	0:30	6:55	13:05	19:30
	S	3	1:45	8:00	14:15	20:25
	S	4	2:40	8:50	15:00	21:10
	M	5	3:30	9:35	15:45	21:55
●	Tu	6	4:10	10:10	16:20	22:30
	W	7	4:50	10:50	17:10	23:10
S	Th	8	5:30	11:25	17:50	23:45
	F	9	6:10	12:00	18:30	. . .
			N to S.	S to N.	N to S.	S to N.
	S	10	0:20	6:50	12:40	19:10
	S	11	1:00	7:30	13:20	19:50
	M	12	1:45	8:20	14:10	20:40
	Tu	13	2:45	9:10	15:10	21:35
☽ A	W	14	3:40	10:00	16:10	22:30
E	Th	15	4:50	11:00	17:15	23:30
	F	16	5:50	12:00	18:20	. . .
			S to N.	N to S.	S to N.	N to S.
	S	17	0:30	6:55	13:05	19:30
	S	18	1:30	7:50	14:00	20:15
	M	19	2:30	8:40	14:50	21:00
	Tu	20	3:00	9:10	15:25	21:35
	W	21	3:50	10:00	16:05	22:20
○ N	Th	22	4:30	10:30	16:40	22:50
	F	23	5:10	11:10	17:30	23:30
	S	24	5:50	11:45	18:10	. . .
			N to S.	S to N.	N to S.	S to N.
	S	25	0:00	6:30	12:20	19:00
	M	26	0:50	7:20	13:10	19:40
P	Tu	27	1:35	8:05	14:00	20:35
	W	28	2:35	9:05	15:10	21:40
E ☾	Th	29	3:40	10:20	16:30	22:40
	F	30	5:10	11:20	17:40	. . .
			S to N.	N to S.	S to N.	N to S.
	S	31	0:00	6:25	12:35	19:00

It is not safe for any vessel, especially a large one, to pass from below Francis Rocks, to above Liesnoi Shoal. During spring tide it is recommended to pass through only at or near the time of middle slack. The water at the strength of the current is very much disturbed, heaving up over the ledge in the middle and boiling and swirling in the channel, especially at the end where the water is passing out. The channel is so narrow and the current so variable in direction that if a vessel gets a sheer she may be carried on the reef or shore before she can be straightened out. The currents in Sergius Narrows are quite irregular (see the results obtained by Lieut. Commander E. K. Moore, U. S. N., given on page 481), and mariners are advised, therefore, to be on hand a sufficient time before the tabulated times (say half an hour or more), in order to make sure of the desired slack water, in case the predictions happen to be too late. If bound to the northward, a vessel should be on hand somewhat before the time given under "S to N" in the table, and if bound to the southward, somewhat before the time given under "N to S" in the table. There is about half an hour on each side of middle slack when any ordinary powered vessel can pass in perfect safety, especially if going with the current. Strangers should never vary from the rule of passing either way at the slack-water period, taking care to select a time of slack water which will be followed by a favorable current.

Seymour Narrows and Sergius Narrows.

In order to satisfy those who prefer using the old rules for obtaining the times of slack water, rather than the published predictions for Seymour Narrows and Sergius Narrows, the following rules are given here:

At Seymour Narrows, for high-water slacks add 4h 53m to Sitka time of high water, and for low-water slacks add 5h to Sitka time of low water. The result is in 120th meridian time without further correction. The mean duration of slack current is generally about 12m, but it varies from about 30m down to no slack.

At Sergius Narrows, for high-water slacks subtract 2h from Sitka time of high water, and for low-water slacks subtract 2h from Sitka time of low water. The mean duration of slack current is from 5m to 20m. At the end of high-water slack the current turns and flows southward through Sergius Narrows for about six hours, or until low-water slack, after which the current turns and flows northward for about six hours. The high and low tides occur nearly two hours after slack waters.

The following tables and remarks were compiled by Lieut. Commander E. K. Moore, U. S. N., Assistant, U. S. C. & G. S., from the current observations he obtained in 1897 at Seymour Narrows, British Columbia, and Sergius Narrows, Alaska.

Seymour Narrows.

	h.	m.
Mean time of slack after higher H.W. Sitka. (58 Obs.)	4	45
Mean variation from 4h 45m		10
Extreme variation 24m earlier to 1h 00m later	1	24
Mean time of slack after lower H.W. Sitka. (145 Obs.)	4	50
Mean variation from 4h 50m		17
Extreme variation 35m earlier to 54m later	1	29
Mean time of slack after all high waters. Sitka. (203 Obs.)	4	48
Mean variation from 4h 48m		15
Extreme variation 33m earlier to 57m later	1	30
Mean time of slack after lower L.W. Sitka. (122 Obs.)	4	28
Mean variation from 4h 28m		14
Extreme variation 28m earlier to 1h 02m later	1	30
Mean time of slack after higher L.W. Sitka. (53 Obs.)	5	41
Mean variation from 5h 41m		35
Extreme variation 1h 15m earlier to 1h 27m later	2	42
Mean time of slack after all low waters. Sitka. (175 Obs.)	4	51
Mean variation from 4h 51m		36
Extreme variation 51m earlier to 2h 17m later	3	08
Mean time of slack after all H. and L. waters. Sitka. (378 Obs.)	4	50
Mean of the variation from 4h 50m		23
Extreme variation 50m earlier to 2h 19m later	3	08
Mean duration of slack water		13
Variation of duration of slack water	6m to 0	19

The time used at Seymour Narrows is 120th meridian, and that at Sitka 135th meridian, so that, to make use of the table, take the time of high or low water from the Sitka table, add the difference shown by this table, and the time will be that of slack water in 120th meridian, or Puget Sound time.

The mean time of slack after higher low water is large and the variation is also large, but this constant is unimportant, as it is calculated on the tide which has the least change in water level, consequently the weakest current, and except at the largest springs a steamer can pass at any time during this tide.

The interval is generally shorter at or about the spring tides and longer at or about the neaps. A vessel requiring slack water should be on hand at the limit of the variation, and wait if the current is running too strong.

Sergius Narrows.

	h.	m.
Mean time of slack before higher H. W. Sitka. (87 Obs.)	1	35
Mean of the variations from 1h 35m		19
Extreme variations 47m earlier to 47m later	1	34
Mean time of slack before lower H. W. Sitka. (120 Obs.)	2	18
Mean of the variations from 2h 18m		14
Extreme variations 47m earlier to 55m later	1	42
Mean time of slack before all high waters. Sitka. (207 Obs.)	2	00
Mean of the variations from 2h 00m		24
Extreme variations 1h 05m earlier to 1h 09m later	2	14
Mean time of slack before lower L. W. Sitka. (99 Obs.)	2	00
Mean of the variations from 2h 00m		11
Extreme variations 21m earlier to 25m later		46
Mean time of slack before higher L. W. Sitka. (135 Obs.)	1	27
Mean of variations from 1h 27m		11
Extreme variations 36m earlier to 40m later	1	16
Mean time of slack before all low waters. Sitka. (234 Obs.)	1	41
Mean of the variations from 1h 41m		17
Extreme variations 40m earlier to 54m later	1	34
Mean time of slack before all H. and L. W. Sitka. (441 Obs.)	1	50
Mean of the variations from 1h 50m		24
Extreme variations 1h 15m earlier to 1h 03m later	2	18
Mean duration of slack water		03
Variation of the above is practically		00
Mean duration of weak current not exceeding 2 knots. (414 Obs.)		50
Variation of the same	9m to	2 00

When the difference shown by this table is subtracted from the time of high or low water at Sitka, the time will be that of slack water at Sergius Narrows, in 135th meridian time.

All the larger variations of the above table occurred at or near neap tides, when the current was weak and the time of absolute slack was not important. At or about spring tides the variation seldom exceeded 10 minutes.

Georgia Strait, British Columbia.

To find the approximate 120th meridian time of *slack water:*

(1) At Race Passage, for the large tides, take Port Townsend time of high tide for higher high water slack, and add 55 minutes to the times of low tide for lower low water slack. For small tides add 1 hour 20 minutes to Port Townsend times of tide for lower high and higher low water slacks.

NOTE.—At Race Passage it has been observed that the ebb stream has frequently run, during small tides, the whole time the tide was rising by the shore.

(2) At East Point, take the Port Townsend time of high tide for higher high water slack, and add 1 hour 30 minutes to the time of low tide for lower low water slack.

(3) At Active Pass, take the Port Townsend time of high tide for higher high water slack, and add 1 hour to the time of low tide for lower low water slack.

(4) At Portier Pass, subtract 15 minutes from the Port Townsend time of high tide for higher high water slack, and add 30 minutes to the time of low tide for lower low water slack.

(5) At Dodd Narrows, for the large tides, subtract 40 minutes from Port Townsend time of tide for higher high and lower low water slacks. For small tides take Port Townsend time of tide for high or low water slack.

(6) At Burrard Inlet, First Narrows, add 2 hours and 30 minutes to the large tides and 2 hours to the small tides at Port Townsend.

(7) At Yuculta Rapids, Stuart Island, for large tides take Port Townsend time of tide for high and low water slacks. For small tides add 1 hour and 30 minutes to the Port Townsend times to obtain high or low water slack.

(8) At Hole in the Wall, add 45 minutes to Port Townsend time of tide.

(9) At Seechelt Rapids, add 4 hours 30 minutes to the Port Townsend time of the large tides and 4 hours to the time of the small tides.

NOTE.—The time of slack water for small tides is more uncertain than for the large tides.

These rules were furnished by Capt. J. T. Walbran, commanding D. G. S. *Quadra.*

Chatham Strait, Alaska.

To find the approximate 135th meridian time of *slack water:*

At Killisnoo, Kootznahoo Roads, add 3 hours to the Sitka time of the higher high waters, and add 2 hours to the time of all other tides. The current turns from ESE. to WNW. between high and low water, and from WNW. to ESE. between low and high water.

TABLE 10.—MEAN LOCAL TIME OF SUN RISE AND SUN SET.

Declination.	Approx. date.	North Latitude.															
		0°	2°	4°	6°	8°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	5 59	6 02	6 06	6 10	6 14	6 17	6 19	6 20	6 22	6 24	6 26	6 28	6 30	6 32	6 33	6 35
22 37	6	6 02	6 05	6 09	6 11	6 15	6 18	6 21	6 22	6 24	6 26	6 28	6 29	6 31	6 33	6 35	6 36
21 58	11	6 04	6 07	6 11	6 14	6 17	6 20	6 22	6 23	6 25	6 27	6 29	6 30	6 32	6 34	6 36	6 37
21 08	16	6 06	6 09	6 12	6 15	6 18	6 21	6 23	6 24	6 26	6 28	6 30	6 31	6 33	6 34	6 36	6 38
20 07	21	6 07	6 10	6 12	6 16	6 19	6 22	6 24	6 25	6 27	6 28	6 30	6 31	6 33	6 34	6 36	6 38
18 58	26	6 09	6 12	6 14	6 17	6 20	6 22	6 24	6 25	6 27	6 28	6 30	6 31	6 32	6 34	6 35	6 37
17 39 S	31	6 10	6 13	6 15	6 17	6 20	6 22	6 24	6 25	6 26	6 28	6 29	6 30	6 32	6 33	6 34	6 36
16 13 S	Feb. 5	6 10	6 13	6 15	6 17	6 20	6 22	6 23	6 24	6 25	6 27	6 28	6 29	6 30	6 32	6 32	6 34
14 40	10	6 11	6 13	6 15	6 17	6 19	6 21	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 29	6 30	6 32
13 01	15	6 11	6 13	6 14	6 16	6 18	6 20	6 20	6 22	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 29
11 16	20	6 10	6 12	6 13	6 15	6 16	6 18	6 18	6 20	6 20	6 21	6 22	6 23	6 23	6 24	6 25	6 26
9 28 S	25	6 10	6 11	6 12	6 13	6 14	6 16	6 16	6 18	6 18	6 18	6 19	6 20	6 20	6 21	6 22	6 22
7 30 S	Mar. 2	6 09	6 10	6 11	6 12	6 12	6 14	6 14	6 15	6 15	6 16	6 16	6 17	6 17	6 18	6 18	6 19
5 34	7	6 08	6 08	6 09	6 10	6 10	6 11	6 11	6 12	6 12	6 12	6 13	6 13	6 14	6 14	6 14	6 15
3 37	12	6 06	6 06	6 07	6 08	6 08	6 09	6 09	6 09	6 09	6 09	6 10	6 10	6 10	6 10	6 10	6 11
1 39 S	17	6 05	6 05	6 05	6 05	6 05	6 06	6 06	6 06	6 06	6 06	6 06	6 06	6 06	6 06	6 06	6 06
0 20 N	22	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 02	6 02	6 02	6 02	6 02	6 02	6 02	6 02
2 18 N	27	6 02	6 01	6 01	6 01	6 00	6 00	6 00	5 59	5 59	5 59	5 59	5 58	5 58	5 58	5 58	5 58
4 15 N	Apr. 1	6 00	6 00	5 59	5 58	5 58	5 57	5 56	5 56	5 56	5 55	5 55	5 55	5 54	5 54	5 54	5 53
6 09	6	5 59	5 58	5 57	5 56	5 55	5 54	5 54	5 53	5 53	5 52	5 52	5 51	5 50	5 50	5 50	5 49
8 02	11	5 57	5 56	5 55	5 55	5 53	5 52	5 51	5 50	5 49	5 49	5 48	5 48	5 47	5 46	5 46	5 45
9 51	16	5 56	5 54	5 53	5 52	5 50	5 49	5 48	5 47	5 46	5 46	5 45	5 44	5 43	5 42	5 42	5 41
11 35	21	5 55	5 53	5 52	5 51	5 49	5 47	5 46	5 45	5 44	5 43	5 42	5 41	5 40	5 39	5 38	5 37
13 15 N	26	5 54	5 52	5 50	5 48	5 46	5 44	5 43	5 42	5 41	5 40	5 39	5 38	5 37	5 36	5 35	5 34
14 50 N	May 1	5 53	5 51	5 49	5 47	5 44	5 42	5 41	5 40	5 39	5 38	5 36	5 35	5 34	5 33	5 32	5 31
16 19	6	5 53	5 51	5 49	5 45	5 43	5 41	5 39	5 38	5 37	5 36	5 34	5 33	5 32	5 30	5 29	5 28
17 42	11	5 52	5 50	5 47	5 44	5 42	5 39	5 38	5 36	5 35	5 34	5 32	5 31	5 30	5 28	5 26	5 25
18 55	16	5 52	5 50	5 47	5 44	5 41	5 38	5 37	5 35	5 34	5 32	5 31	5 29	5 28	5 26	5 25	5 23
19 58	21	5 52	5 50	5 46	5 44	5 40	5 38	5 36	5 34	5 33	5 31	5 30	5 28	5 26	5 25	5 23	5 21
21 00	26	5 53	5 50	5 47	5 44	5 40	5 37	5 36	5 34	5 32	5 31	5 29	5 27	5 25	5 24	5 22	5 20
21 48 N	31	5 53	5 50	5 47	5 44	5 40	5 37	5 35	5 34	5 32	5 30	5 28	5 27	5 25	5 23	5 21	5 19
22 28 N	June 5	5 54	5 51	5 48	5 44	5 41	5 37	5 36	5 34	5 32	5 30	5 28	5 26	5 25	5 22	5 21	5 19
22 57	10	5 55	5 52	5 48	5 45	5 41	5 38	5 36	5 34	5 32	5 31	5 29	5 27	5 25	5 23	5 21	5 19
23 17	15	5 56	5 53	5 49	5 46	5 42	5 38	5 37	5 35	5 33	5 31	5 30	5 28	5 26	5 24	5 22	5 20
23 26	20	5 57	5 54	5 50	5 47	5 43	5 39	5 38	5 36	5 34	5 32	5 31	5 29	5 27	5 25	5 23	5 21
23 25	25	5 58	5 55	5 51	5 48	5 44	5 41	5 39	5 37	5 35	5 33	5 32	5 30	5 28	5 26	5 24	5 22
23 14 N	30	5 59	5 56	5 52	5 49	5 46	5 42	5 40	5 38	5 36	5 35	5 33	5 31	5 29	5 27	5 25	5 23
22 52 N	July 5	6 00	5 57	5 54	5 50	5 47	5 43	5 42	5 39	5 38	5 36	5 34	5 32	5 30	5 29	5 27	5 25
22 21	10	6 01	5 58	5 55	5 51	5 48	5 44	5 43	5 40	5 39	5 36	5 36	5 34	5 32	5 30	5 28	5 27
21 40	15	6 02	5 59	5 55	5 52	5 49	5 45	5 44	5 42	5 41	5 39	5 37	5 36	5 34	5 32	5 30	5 28
20 50	20	6 02	5 59	5 56	5 53	5 50	5 47	5 45	5 44	5 42	5 40	5 39	5 37	5 36	5 34	5 32	5 30
19 50	25	6 02	6 00	5 57	5 54	5 51	5 48	5 46	5 45	5 43	5 42	5 40	5 39	5 37	5 36	5 34	5 32
18 43 N	30	6 02	6 00	5 57	5 55	5 52	5 49	5 47	5 46	5 44	5 43	5 42	5 40	5 39	5 37	5 36	5 34
17 28 N	Aug. 4	6 02	6 00	5 57	5 55	5 52	5 49	5 48	5 47	5 46	5 44	5 43	5 42	5 40	5 39	5 37	5 36
16 06	9	6 02	5 59	5 57	5 55	5 52	5 50	5 49	5 48	5 46	5 45	5 44	5 43	5 41	5 40	5 39	5 38
14 37	14	6 01	5 59	5 57	5 54	5 52	5 50	5 49	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 40	5 39
13 03	19	6 00	5 58	5 56	5 54	5 52	5 50	5 50	5 48	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 41
11 23	24	5 59	5 57	5 55	5 54	5 52	5 50	5 50	5 49	5 48	5 47	5 46	5 46	5 45	5 44	5 43	5 42
9 39 N	29	5 57	5 56	5 54	5 53	5 52	5 50	5 50	5 49	5 48	5 48	5 47	5 46	5 46	5 45	5 44	5 43
7 51 N	Sept. 3	5 56	5 54	5 53	5 52	5 51	5 50	5 50	5 49	5 48	5 48	5 47	5 47	5 46	5 46	5 45	5 44
6 00	8	5 54	5 53	5 52	5 52	5 51	5 50	5 50	5 49	5 49	5 48	5 48	5 47	5 47	5 46	5 46	5 46
4 07	13	5 52	5 52	5 51	5 51	5 50	5 49	5 49	5 49	5 49	5 48	5 48	5 48	5 48	5 47	5 47	5 47
2 11	18	5 51	5 51	5 50	5 50	5 49	5 49	5 49	5 49	5 49	5 48	5 48	5 48	5 48	5 48	5 48	5 48
0 15 N	23	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49
1 42 S	28	5 47	5 47	5 48	5 48	5 48	5 48	5 48	5 49	5 49	5 49	5 49	5 49	5 49	5 50	5 50	5 50
3 39 S	Oct. 3	5 45	5 56	5 46	5 47	5 48	5 48	5 48	5 49	5 49	5 49	5 50	5 50	5 50	5 51	5 51	5 51
5 35	8	5 44	5 45	5 46	5 47	5 47	5 48	5 48	5 49	5 49	5 50	5 50	5 51	5 51	5 52	5 52	5 52
7 28	13	5 43	5 44	5 45	5 46	5 47	5 48	5 49	5 49	5 50	5 50	5 51	5 52	5 52	5 53	5 53	5 54
9 20	18	5 42	5 43	5 44	5 46	5 47	5 48	5 49	5 50	5 50	5 51	5 52	5 53	5 53	5 54	5 55	5 56
11 08	23	5 41	5 42	5 44	5 46	5 47	5 49	5 50	5 51	5 51	5 52	5 53	5 54	5 55	5 56	5 57	5 58
12 51 S	28	5 40	5 42	5 44	5 46	5 47	5 49	5 51	5 52	5 52	5 54	5 54	5 56	5 56	5 58	5 59	6 00
14 30 S	Nov. 2	5 40	5 42	5 44	5 46	5 48	5 50	5 52	5 53	5 54	5 55	5 56	5 57	5 58	6 00	6 01	6 02
16 03	7	5 40	5 42	5 45	5 47	5 49	5 52	5 53	5 54	5 56	5 57	5 58	5 59	6 00	6 02	6 03	6 04
17 29	12	5 40	5 43	5 46	5 48	5 51	5 53	5 55	5 56	5 57	5 59	6 00	6 01	6 03	6 04	6 06	6 07
18 48	17	5 41	5 44	5 47	5 50	5 52	5 55	5 57	5 58	6 00	6 01	6 02	6 04	6 05	6 07	6 08	6 10
19 58	22	5 42	5 45	5 48	5 51	5 54	5 57	5 59	6 00	6 02	6 04	6 05	6 07	6 08	6 10	6 11	6 13
20 59 S	27	5 44	5 47	5 50	5 54	5 56	5 59	6 01	6 02	6 04	6 05	6 08	6 09	6 11	6 13	6 14	6 16
21 51 S	Dec. 2	5 45	5 49	5 52	5 56	5 59	6 01	6 03	6 05	6 07	6 09	6 10	6 12	6 14	6 16	6 18	6 19
22 32	7	5 47	5 51	5 54	5 58	6 01	6 04	6 06	6 08	6 10	6 12	6 13	6 15	6 17	6 19	6 21	6 22
23 02	12	5 50	5 53	5 57	6 00	6 04	6 07	6 09	6 11	6 12	6 14	6 16	6 18	6 20	6 22	6 24	6 25
23 20	17	5 52	5 56	5 59	6 03	6 06	6 09	6 11	6 13	6 15	6 17	6 19	6 21	6 23	6 24	6 26	6 28
23 27	22	5 54	5 58	6 02	6 05	6 09	6 12	6 14	6 16	6 18	6 20	6 22	6 23	6 25	6 27	6 29	6 31
23 22 S	27	5 57	6 01	6 04	6 08	6 11	6 14	6 16	6 18	6 20	6 22	6 24	6 26	6 28	6 29	6 31	6 33
23 05 S	Jan. 1	5 59	6 02	6 06	6 10	6 14	6 17	6 19	6 20	6 22	6 24	6 26	6 28	6 30	6 32	6 33	6 35

Declination.	Approx. date.	North Latitude.															
		0°	2°	4°	6°	8°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	6 08	6 05	6 01	5 57	5 53	5 50	5 49	5 48	5 46	5 44	5 42	5 40	5 38	5 37	5 35	5 33
22 34	6	6 10	6 07	6 04	5 59	5 56	5 53	5 52	5 50	5 49	5 47	5 45	5 43	5 42	5 40	5 38	5 36
21 53	11	6 12	6 09	6 06	6 03	6 00	5 56	5 55	5 53	5 51	5 50	5 48	5 46	5 45	5 43	5 41	5 39
21 02	16	6 14	6 11	6 08	6 04	6 01	5 58	5 57	5 56	5 54	5 52	5 51	5 49	5 48	5 46	5 44	5 43
20 01	21	6 15	6 12	6 09	6 07	6 04	6 01	6 00	5 58	5 57	5 55	5 54	5 52	5 50	5 49	5 47	5 46
18 50	26	6 16	6 13	6 10	6 09	6 06	6 03	6 02	6 00	5 59	5 58	5 56	5 55	5 53	5 52	5 50	5 49
17 31 S	31	6 17	6 14	6 12	6 10	6 08	6 05	6 04	6 03	6 01	6 00	5 59	5 58	5 56	5 55	5 53	5 52
16 04 S	Feb. 5	6 18	6 16	6 14	6 10	6 08	6 06	6 06	6 04	6 03	6 02	6 01	6 00	5 58	5 57	5 56	5 55
14 30	10	6 18	6 16	6 14	6 12	6 10	6 08	6 07	6 06	6 04	6 04	6 02	6 02	6 00	5 59	5 58	5 58
12 51	15	6 18	6 16	6 14	6 13	6 11	6 09	6 08	6 07	6 06	6 06	6 05	6 04	6 03	6 02	6 01	6 00
11 06	20	6 18	6 16	6 14	6 13	6 12	6 10	6 09	6 08	6 08	6 07	6 06	6 05	6 05	6 04	6 03	6 02
9 16 S	25	6 17	6 16	6 14	6 13	6 12	6 11	6 10	6 09	6 09	6 08	6 08	6 07	6 06	6 05	6 04	6 04
7 18 S	Mar. 2	6 16	6 15	6 14	6 13	6 12	6 11	6 11	6 10	6 10	6 09	6 09	6 08	6 08	6 07	6 06	6 06
5 23	7	6 15	6 14	6 13	6 13	6 12	6 11	6 11	6 10	6 10	6 10	6 09	6 09	6 09	6 08	6 08	6 08
3 25	12	6 14	6 13	6 12	6 12	6 12	6 11	6 11	6 11	6 11	6 10	6 10	6 10	6 10	6 10	6 09	6 09
1 27 S	17	6 12	6 12	6 12	6 12	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11
0 32 N	22	6 11	6 12	6 12	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 12	6 12	6 12	6 12	6 12	6 12
2 30 N	27	6 09	6 09	6 10	6 10	6 10	6 11	6 11	6 11	6 12	6 12	6 12	6 12	6 13	6 13	6 13	6 13
4 26 N	Apr. 1	6 08	6 09	6 10	6 10	6 10	6 11	6 11	6 12	6 12	6 12	6 13	6 13	6 14	6 14	6 14	6 15
6 21	6	6 06	6 07	6 08	6 09	6 10	6 11	6 11	6 12	6 12	6 13	6 13	6 14	6 14	6 15	6 16	6 16
8 13	11	6 05	6 06	6 07	6 08	6 10	6 11	6 11	6 12	6 13	6 13	6 14	6 15	6 15	6 16	6 17	6 17
10 01	16	6 04	6 06	6 07	6 08	6 09	6 11	6 12	6 12	6 13	6 14	6 15	6 16	6 16	6 17	6 18	6 19
11 46	21	6 03	6 05	6 07	6 08	6 09	6 11	6 12	6 13	6 14	6 15	6 16	6 17	6 18	6 18	6 19	6 20
13 25 N	26	6 02	6 04	6 06	6 07	6 09	6 11	6 12	6 13	6 14	6 16	6 17	6 18	6 19	6 20	6 21	6 22
14 59 N	May 1	6 01	6 04	6 06	6 07	6 10	6 12	6 13	6 14	6 15	6 16	6 18	6 19	6 20	6 21	6 22	6 24
16 27	6	6 00	6 03	6 05	6 08	6 10	6 12	6 14	6 15	6 16	6 18	6 19	6 20	6 22	6 23	6 24	6 26
17 48	11	6 00	6 03	6 05	6 08	6 11	6 13	6 15	6 16	6 18	6 19	6 20	6 22	6 23	6 25	6 26	6 28
19 02	16	6 00	6 03	6 06	6 09	6 12	6 14	6 16	6 17	6 19	6 20	6 21	6 23	6 25	6 26	6 28	6 30
20 04	21	6 00	6 03	6 06	6 09	6 12	6 15	6 17	6 18	6 20	6 22	6 23	6 25	6 26	6 28	6 30	6 32
21 05	26	6 01	6 04	6 07	6 10	6 13	6 17	6 18	6 20	6 22	6 23	6 25	6 27	6 28	6 30	6 32	6 34
21 53 N	31	6 01	6 05	6 08	6 11	6 14	6 18	6 20	6 21	6 23	6 25	6 26	6 28	6 30	6 32	6 34	6 36
22 31 N	June 5	6 02	6 06	6 09	6 12	6 16	6 19	6 21	6 23	6 25	6 26	6 28	6 30	6 32	6 34	6 36	6 38
23 00	10	6 03	6 07	6 10	6 13	6 16	6 20	6 22	6 24	6 26	6 28	6 30	6 32	6 34	6 36	6 37	6 39
23 18	15	6 04	6 08	6 11	6 15	6 18	6 22	6 24	6 26	6 27	6 29	6 31	6 33	6 35	6 37	6 39	6 41
23 26	20	6 05	6 09	6 12	6 16	6 20	6 23	6 25	6 27	6 29	6 30	6 32	6 34	6 36	6 38	6 40	6 42
23 24	25	6 06	6 10	6 14	6 17	6 21	6 24	6 26	6 28	6 30	6 31	6 33	6 35	6 37	6 39	6 41	6 43
23 12 N	30	6 07	6 11	6 14	6 18	6 21	6 25	6 27	6 28	6 30	6 32	6 34	6 36	6 38	6 40	6 42	6 44
22 50 N	July 5	6 08	6 12	6 15	6 19	6 22	6 25	6 27	6 29	6 31	6 32	6 34	6 36	6 38	6 40	6 42	6 44
22 17	10	6 09	6 12	6 16	6 19	6 22	6 26	6 27	6 29	6 31	6 33	6 34	6 36	6 38	6 40	6 42	6 44
21 35	15	6 10	6 13	6 16	6 19	6 22	6 26	6 27	6 29	6 31	6 32	6 34	6 36	6 38	6 39	6 41	6 43
20 44	20	6 10	6 13	6 16	6 19	6 22	6 25	6 27	6 28	6 30	6 32	6 33	6 35	6 37	6 38	6 40	6 42
19 44	25	6 10	6 13	6 16	6 20	6 23	6 25	6 27	6 27	6 29	6 31	6 32	6 34	6 35	6 37	6 38	6 40
18 36 N	30	6 10	6 13	6 15	6 19	6 22	6 24	6 26	6 26	6 28	6 29	6 31	6 32	6 34	6 35	6 36	6 38
17 20 N	Aug. 4	6 10	6 12	6 15	6 18	6 21	6 23	6 24	6 25	6 26	6 27	6 29	6 30	6 31	6 33	6 34	6 36
15 57	9	6 09	6 11	6 14	6 17	6 19	6 21	6 23	6 23	6 24	6 25	6 26	6 28	6 29	6 30	6 31	6 33
14 28	14	6 08	6 10	6 12	6 15	6 17	6 19	6 21	6 21	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 29
12 53	19	6 07	6 09	6 11	6 13	6 15	6 17	6 18	6 18	6 19	6 20	6 21	6 22	6 23	6 24	6 25	6 26
11 13	24	6 06	6 07	6 09	6 10	6 12	6 14	6 15	6 15	6 16	6 17	6 18	6 18	6 19	6 20	6 21	6 22
9 29 N	29	6 05	6 07	6 08	6 09	6 11	6 12	6 13	6 12	6 13	6 14	6 14	6 15	6 16	6 16	6 17	6 18
7 40 N	Sept. 3	6 03	6 04	6 05	6 07	6 08	6 09	6 09	6 09	6 10	6 10	6 11	6 11	6 12	6 12	6 13	6 14
5 49	8	6 02	6 03	6 04	6 04	6 05	6 06	6 06	6 06	6 06	6 07	6 07	6 07	6 08	6 08	6 09	6 09
3 55	13	6 00	6 00	6 00	6 02	6 02	6 03	6 03	6 02	6 02	6 03	6 03	6 03	6 04	6 04	6 04	6 05
2 00	18	5 58	5 58	5 58	5 58	5 58	5 59	5 59	5 59	5 59	5 59	5 59	6 00	6 00	6 00	6 00	6 00
0 03 N	23	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56
1 54 S	28	5 55	5 55	5 54	5 53	5 53	5 53	5 52	5 52	5 52	5 52	5 52	5 52	5 52	5 51	5 51	5 51
3 51 S	Oct. 3	5 53	5 53	5 52	5 51	5 50	5 50	5 50	5 49	5 49	5 49	5 49	5 48	5 48	5 48	5 47	5 47
5 46	8	5 52	5 51	5 50	5 48	5 48	5 47	5 46	5 46	5 45	5 45	5 44	5 44	5 44	5 43	5 43	5 42
7 40	13	5 50	5 49	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 42	5 41	5 41	5 40	5 39	5 39	5 38
9 31	18	5 49	5 48	5 46	5 45	5 44	5 42	5 41	5 40	5 40	5 39	5 38	5 38	5 37	5 35	5 35	5 34
11 18	23	5 48	5 46	5 45	5 43	5 41	5 40	5 39	5 38	5 37	5 36	5 36	5 35	5 34	5 33	5 32	5 31
13 02 S	28	5 48	5 46	5 44	5 42	5 40	5 38	5 37	5 36	5 35	5 34	5 33	5 32	5 31	5 30	5 29	5 28
14 40 S	Nov. 2	5 48	5 45	5 43	5 41	5 39	5 37	5 36	5 34	5 33	5 32	5 31	5 30	5 29	5 28	5 26	5 25
16 12	7	5 48	5 45	5 43	5 41	5 38	5 36	5 35	5 33	5 32	5 31	5 30	5 28	5 27	5 26	5 24	5 23
17 38	12	5 48	5 46	5 43	5 40	5 38	5 35	5 34	5 32	5 31	5 30	5 29	5 27	5 26	5 24	5 23	5 21
18 55	17	5 49	5 46	5 44	5 41	5 38	5 35	5 34	5 32	5 31	5 29	5 28	5 26	5 25	5 23	5 22	5 20
20 05	22	5 50	5 47	5 45	5 41	5 38	5 35	5 34	5 32	5 31	5 29	5 28	5 26	5 24	5 23	5 21	5 20
21 05 S	27	5 52	5 49	5 46	5 42	5 39	5 36	5 35	5 33	5 31	5 30	5 28	5 26	5 25	5 23	5 21	5 20
21 55 S	Dec. 2	5 53	5 49	5 47	5 43	5 40	5 37	5 36	5 34	5 32	5 31	5 29	5 27	5 25	5 24	5 22	5 20
22 35	7	5 55	5 51	5 49	5 45	5 42	5 39	5 37	5 36	5 34	5 32	5 30	5 28	5 27	5 25	5 23	5 21
23 04	12	5 58	5 55	5 52	5 47	5 44	5 41	5 39	5 37	5 36	5 34	5 32	5 30	5 28	5 26	5 24	5 23
23 21	17	6 00	5 56	5 58	5 50	5 47	5 43	5 41	5 40	5 38	5 36	5 34	5 32	5 30	5 28	5 27	5 25
23 27	22	6 03	6 00	5 56	5 52	5 48	5 45	5 43	5 42	5 40	5 38	5 36	5 35	5 33	5 31	5 29	5 27
23 21 S	27	6 05	6 01	5 58	5 55	5 52	5 48	5 46	5 45	5 43	5 41	5 39	5 37	5 35	5 34	5 32	5 30
23 03 S	Jan. 1	6 08	6 05	6 01	5 57	5 53	5 50	5 49	5 48	5 46	5 44	5 42	5 40	5 38	5 37	5 35	5 33

Declination.	Approx. date.	North Latitude.															
		21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	36°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 54	6 56	6 58	7 01	7 03	7 05	7 08	7 10
22 37	6	6 38	6 40	6 42	6 44	6 46	6 48	6 50	6 52	6 55	6 57	6 59	7 01	7 04	7 06	7 08	7 11
21 58	11	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 53	6 55	6 57	6 59	7 01	7 04	7 06	7 08	7 11
21 08	16	6 40	6 41	6 43	6 45	6 47	6 49	6 50	6 52	6 54	6 56	6 58	7 00	7 03	7 05	7 07	7 09
20 07	21	6 39	6 41	6 43	6 44	6 46	6 48	6 49	6 51	6 53	6 56	6 57	6 59	7 01	7 03	7 05	7 07
18 58	26	6 38	6 40	6 42	6 43	6 45	6 46	6 48	6 50	6 52	6 53	6 55	6 57	6 59	7 01	7 02	7 04
17 39 S	31	6 37	6 38	6 40	6 41	6 43	6 44	6 46	6 48	6 49	6 51	6 52	6 54	6 56	6 58	7 00	7 02
16 13 S	Feb. 5	6 35	6 36	6 38	6 39	6 41	6 42	6 43	6 45	6 46	6 48	6 49	6 51	6 52	6 54	6 55	6 57
14 40	10	6 33	6 34	6 35	6 36	6 38	6 39	6 40	6 41	6 42	6 43	6 44	6 46	6 48	6 49	6 50	6 52
13 01	15	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 37	6 38	6 40	6 41	6 42	6 43	6 44	6 45	6 46
11 16	20	6 27	6 28	6 29	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 37	6 38	6 39	6 40	6 41	6 42
9 28 S	25	6 23	6 24	6 24	6 25	6 26	6 27	6 28	6 28	6 29	6 30	6 31	6 32	6 33	6 34	6 35	6 36
7 30 S	Mar. 2	6 19	6 20	6 20	6 21	6 22	6 22	6 23	6 23	6 24	6 25	6 25	6 26	6 26	6 27	6 28	6 29
5 34	7	6 15	6 16	6 16	6 16	6 17	6 17	6 18	6 18	6 18	6 19	6 19	6 20	6 20	6 20	6 21	6 21
3 37	12	6 11	6 11	6 11	6 12	6 12	6 12	6 12	6 13	6 13	6 13	6 13	6 14	6 14	6 14	6 14	6 14
1 39 S	17	6 06	6 06	6 06	6 07	6 07	6 07	6 07	6 07	6 07	6 07	6 07	6 07	6 07	6 07	6 07	6 07
0 20 N	22	6 02	6 02	6 02	6 02	6 01	6 01	6 01	6 01	6 01	6 01	6 01	6 01	6 00	6 00	6 00	6 00
2 18 N	27	5 57	5 57	5 57	5 57	5 56	5 56	5 56	5 56	5 55	5 55	5 55	5 54	5 54	5 53	5 53	5 52
4 15 N	Apr. 1	5 53	5 52	5 52	5 52	5 51	5 51	5 50	5 50	5 49	5 49	5 48	5 48	5 47	5 46	5 46	5 45
6 09	6	5 48	5 48	5 47	5 47	5 46	5 45	5 45	5 44	5 44	5 43	5 42	5 42	5 41	5 40	5 39	5 38
8 02	11	5 44	5 43	5 42	5 42	5 41	5 40	5 40	5 39	5 38	5 37	5 36	5 35	5 34	5 33	5 32	5 31
9 51	16	5 40	5 39	5 38	5 37	5 36	5 35	5 34	5 34	5 32	5 31	5 30	5 29	5 28	5 27	5 26	5 24
11 35	21	5 36	5 35	5 34	5 33	5 32	5 31	5 30	5 28	5 27	5 26	5 25	5 24	5 22	5 21	5 20	5 18
13 15 N	26	5 32	5 31	5 30	5 29	5 28	5 26	5 25	5 24	5 22	5 21	5 20	5 18	5 17	5 15	5 13	5 12
14 50 N	May 1	5 29	5 28	5 26	5 25	5 24	5 22	5 21	5 20	5 18	5 16	5 15	5 13	5 12	5 10	5 08	5 06
16 19	6	5 26	5 25	5 23	5 22	5 20	5 19	5 17	5 16	5 14	5 12	5 11	5 09	5 07	5 05	5 03	5 01
17 42	11	5 24	5 22	5 20	5 19	5 17	5 15	5 14	5 12	5 10	5 08	5 07	5 05	5 03	5 01	4 58	4 56
18 55	16	5 21	5 20	5 18	5 16	5 15	5 13	5 11	5 09	5 07	5 05	5 03	5 01	4 59	4 57	4 55	4 52
19 58	21	5 20	5 18	5 16	5 14	5 12	5 10	5 09	5 07	5 05	5 02	5 00	4 58	4 56	4 54	4 51	4 49
21 00	26	5 19	5 17	5 15	5 13	5 11	5 09	5 07	5 05	5 02	5 00	4 58	4 56	4 54	4 51	4 49	4 46
21 48 N	31	5 18	5 16	5 14	5 12	5 10	5 08	5 05	5 03	5 01	4 59	4 56	4 54	4 52	4 49	4 46	4 44
22 28 N	June 5	5 17	5 15	5 13	5 11	5 09	5 07	5 05	5 02	5 00	4 58	4 55	4 53	4 50	4 48	4 45	4 43
22 57	10	5 17	5 15	5 13	5 11	5 09	5 07	5 04	5 02	5 00	4 58	4 55	4 53	4 50	4 47	4 45	4 42
23 17	15	5 18	5 16	5 13	5 12	5 09	5 07	5 05	5 02	5 00	4 58	4 55	4 53	4 50	4 47	4 45	4 42
23 26	20	5 19	5 17	5 14	5 13	5 10	5 08	5 06	5 03	5 01	4 58	4 56	4 54	4 51	4 48	4 46	4 43
23 25	25	5 20	5 18	5 15	5 14	5 11	5 09	5 07	5 05	5 02	5 00	4 57	4 55	4 52	4 49	4 46	4 43
23 14 N	30	5 21	5 19	5 17	5 15	5 13	5 11	5 08	5 06	5 04	5 01	4 59	4 56	4 54	4 51	4 49	4 46
22 52 N	July 5	5 23	5 21	5 19	5 17	5 15	5 12	5 10	5 08	5 06	5 03	5 01	4 59	4 56	4 53	4 51	4 48
22 21	10	5 25	5 23	5 21	5 19	5 17	5 15	5 12	5 10	5 08	5 06	5 03	5 01	4 59	4 56	4 54	4 51
21 40	15	5 27	5 25	5 23	5 21	5 19	5 17	5 15	5 13	5 11	5 08	5 06	5 04	5 01	4 59	4 57	4 54
20 50	20	5 29	5 27	5 25	5 23	5 21	5 19	5 17	5 15	5 13	5 11	5 09	5 07	5 05	5 02	5 00	4 58
19 50	25	5 31	5 29	5 27	5 26	5 23	5 22	5 20	5 18	5 16	5 14	5 12	5 10	5 08	5 06	5 04	5 02
18 43 N	30	5 33	5 31	5 29	5 28	5 26	5 24	5 23	5 21	5 19	5 17	5 15	5 13	5 11	5 09	5 07	5 05
17 28 N	Aug. 4	5 34	5 33	5 32	5 30	5 28	5 27	5 25	5 24	5 22	5 20	5 18	5 17	5 15	5 13	5 11	5 10
16 06	9	5 36	5 35	5 34	5 32	5 31	5 29	5 28	5 26	5 25	5 23	5 22	5 20	5 18	5 17	5 15	5 13
14 37	14	5 38	5 37	5 36	5 34	5 33	5 32	5 30	5 29	5 28	5 26	5 25	5 23	5 22	5 20	5 19	5 17
13 03	19	5 40	5 38	5 37	5 36	5 35	5 34	5 33	5 32	5 30	5 29	5 28	5 26	5 25	5 24	5 23	5 21
11 23	24	5 41	5 40	5 39	5 38	5 37	5 36	5 35	5 34	5 33	5 32	5 31	5 30	5 29	5 28	5 27	5 26
9 39 N	29	5 42	5 42	5 41	5 40	5 39	5 38	5 38	5 37	5 36	5 35	5 34	5 33	5 32	5 31	5 30	5 30
7 51 N	Sept. 3	5 44	5 43	5 42	5 42	5 41	5 40	5 40	5 39	5 38	5 38	5 37	5 36	5 35	5 34	5 33	5 32
6 00	8	5 45	5 45	5 44	5 44	5 43	5 42	5 42	5 42	5 41	5 40	5 40	5 39	5 39	5 38	5 38	5 37
4 07	13	5 46	5 46	5 46	5 45	5 45	5 44	5 44	5 44	5 43	5 43	5 43	5 42	5 42	5 42	5 41	5 41
2 11	18	5 47	5 47	5 47	5 47	5 47	5 46	5 46	5 46	5 46	5 46	5 46	5 45	5 45	5 45	5 45	5 45
0 15 N	23	5 49	5 49	5 49	5 49	5 49	5 48	5 49	5 49	5 49	5 48	5 48	5 48	5 48	5 49	5 49	5 49
1 42 S	28	5 50	5 50	5 50	5 50	5 50	5 51	5 51	5 51	5 51	5 51	5 51	5 52	5 52	5 52	5 52	5 53
3 39 S	Oct. 3	5 51	5 52	5 52	5 52	5 52	5 53	5 53	5 54	5 54	5 54	5 55	5 55	5 55	5 56	5 56	5 57
5 35	8	5 53	5 53	5 54	5 54	5 55	5 55	5 56	5 56	5 57	5 57	5 58	5 58	5 59	6 00	6 00	6 01
7 28	13	5 54	5 55	5 56	5 56	5 57	5 58	5 58	5 59	6 00	6 00	6 01	6 02	6 03	6 04	6 04	6 05
9 20	18	5 56	5 57	5 58	5 59	6 00	6 00	6 01	6 02	6 03	6 04	6 05	6 06	6 07	6 08	6 08	6 10
11 08	23	5 58	5 59	6 00	6 01	6 02	6 03	6 04	6 05	6 06	6 07	6 08	6 09	6 10	6 12	6 13	6 14
12 51 S	28	6 01	6 02	6 03	6 04	6 05	6 06	6 07	6 08	6 10	6 11	6 12	6 13	6 15	6 16	6 18	6 19
14 30 S	Nov. 2	6 03	6 04	6 06	6 07	6 08	6 09	6 10	6 12	6 13	6 15	6 16	6 17	6 19	6 21	6 22	6 24
16 03	7	6 06	6 07	6 08	6 10	6 11	6 13	6 14	6 15	6 17	6 18	6 20	6 22	6 23	6 25	6 27	6 29
17 29	12	6 09	6 10	6 11	6 13	6 14	6 16	6 18	6 19	6 21	6 22	6 24	6 26	6 28	6 30	6 32	6 34
18 48	17	6 12	6 13	6 15	6 16	6 18	6 20	6 21	6 23	6 25	6 27	6 29	6 30	6 32	6 35	6 37	6 39
19 58	22	6 15	6 16	6 18	6 20	6 22	6 23	6 25	6 27	6 29	6 31	6 33	6 35	6 37	6 39	6 42	6 44
20 59 S	27	6 18	6 20	6 22	6 23	6 25	6 27	6 29	6 31	6 33	6 35	6 37	6 39	6 42	6 44	6 46	6 49
21 51 S	Dec. 2	6 21	6 23	6 25	6 27	6 29	6 31	6 33	6 35	6 37	6 39	6 41	6 43	6 46	6 48	6 51	6 53
22 32	7	6 24	6 26	6 28	6 30	6 32	6 34	6 36	6 38	6 41	6 43	6 45	6 47	6 50	6 52	6 55	6 57
23 02	12	6 28	6 29	6 31	6 33	6 36	6 38	6 40	6 42	6 44	6 46	6 49	6 51	6 54	6 56	6 59	7 01
23 20	17	6 30	6 32	6 34	6 36	6 38	6 41	6 43	6 45	6 47	6 50	6 52	6 54	6 57	6 59	7 02	7 04
23 27	22	6 33	6 35	6 37	6 39	6 40	6 43	6 45	6 48	6 50	6 52	6 55	6 57	7 00	7 02	7 05	7 07
23 22 S	27	6 35	6 37	6 39	6 41	6 43	6 46	6 48	6 50	6 52	6 54	6 57	6 59	7 02	7 04	7 07	7 09
23 05 S	Jan. 1	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 54	6 56	6 58	7 01	7 03	7 05	7 08	7 10

Declination.	Approx. date.	North latitude.															
		21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	36°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	5 31	5 29	5 27	5 25	5 23	5 21	5 19	5 17	5 14	5 12	5 10	5 08	5 05	5 03	5 00	4 57
22 34	6	5 34	5 32	5 30	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 04	5 01
21 53	11	5 38	5 36	5 33	5 32	5 30	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 13	5 11	5 09	5 06
21 02	16	5 41	5 39	5 37	5 36	5 34	5 32	5 30	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 13	5 11
20 01	21	5 44	5 43	5 41	5 39	5 37	5 36	5 35	5 32	5 30	5 28	5 26	5 25	5 22	5 20	5 18	5 16
18 50	26	5 48	5 46	5 44	5 43	5 41	5 40	5 38	5 36	5 34	5 33	5 31	5 29	5 27	5 25	5 23	5 21
17 31 S	30	5 51	5 49	5 48	5 46	5 45	5 43	5 42	5 40	5 39	5 37	5 36	5 34	5 32	5 30	5 28	5 26
16 04 S	Feb. 5	5 54	5 52	5 51	5 50	5 48	5 47	5 46	5 44	5 43	5 41	5 40	5 38	5 37	5 35	5 33	5 31
14 30	10	5 56	5 55	5 54	5 53	5 52	5 50	5 49	5 48	5 47	5 46	5 44	5 43	5 41	5 40	5 39	5 37
12 51	15	5 59	5 58	5 57	5 56	5 55	5 54	5 53	5 52	5 51	5 50	5 48	5 47	5 46	5 45	5 43	5 42
11 06	20	6 01	6 00	6 00	5 59	5 58	5 57	5 56	5 55	5 54	5 53	5 52	5 51	5 50	5 49	5 48	5 47
9 16 S	25	6 03	6 02	6 02	6 01	6 01	6 00	5 59	5 58	5 58	5 57	5 56	5 55	5 54	5 54	5 53	5 52
7 18 S	Mar. 2	6 05	6 05	6 04	6 04	6 03	6 03	6 02	6 01	6 01	6 00	6 00	5 59	5 58	5 58	5 57	5 56
5 23	7	6 07	6 07	6 07	6 06	6 06	6 05	6 04	6 04	6 04	6 03	6 03	6 03	6 02	6 02	6 02	6 01
3 25	12	6 09	6 09	6 09	6 08	6 08	6 08	6 08	6 07	6 07	6 07	6 07	6 06	6 06	6 06	6 06	6 06
1 27 S	17	6 11	6 11	6 11	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10
0 32 N	22	6 12	6 12	6 12	6 12	6 13	6 13	6 13	6 13	6 13	6 13	6 13	6 14	6 14	6 14	6 14	6 14
2 30 N	27	6 14	6 14	6 14	6 14	6 15	6 15	6 15	6 16	6 16	6 16	6 16	6 17	6 17	6 18	6 18	6 18
4 26 N	Apr. 1	6 15	6 16	6 16	6 16	6 17	6 17	6 18	6 18	6 19	6 19	6 20	6 20	6 21	6 21	6 22	6 22
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8 13	11	6 18	6 19	6 20	6 20	6 21	6 22	6 23	6 24	6 24	6 25	6 26	6 27	6 28	6 29	6 30	6 31
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13 25 N	26	6 23	6 24	6 26	6 27	6 28	6 29	6 30	6 32	6 33	6 34	6 36	6 37	6 39	6 40	6 42	6 43
14 59 N	May 1	6 25	6 26	6 28	6 29	6 30	6 32	6 33	6 35	6 36	6 38	6 39	6 41	6 43	6 44	6 46	6 48
16 27	6	6 27	6 28	6 30	6 31	6 33	6 34	6 36	6 38	6 39	6 41	6 43	6 44	6 46	6 48	6 50	6 52
17 48	11	6 29	6 31	6 32	6 34	6 36	6 37	6 39	6 41	6 42	6 44	6 46	6 48	6 50	6 52	6 54	6 56
19 02	16	6 31	6 33	6 35	6 36	6 38	6 40	6 42	6 44	6 46	6 47	6 49	6 51	6 54	6 56	6 58	7 00
20 04	21	6 33	6 35	6 37	6 39	6 41	6 42	6 44	6 46	6 48	6 50	6 53	6 55	6 57	6 59	7 02	7 04
21 05	26	6 36	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 54	6 56	6 58	7 00	7 03	7 05	7 08
21 53 N	31	6 38	6 40	6 42	6 43	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 01	7 03	7 06	7 09	7 11
22 31 N	June 5	6 40	6 42	6 44	6 46	6 48	6 50	6 52	6 54	6 56	6 59	7 01	7 04	7 07	7 09	7 11	7 14
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23 24	25	6 45	6 47	6 49	6 51	6 54	6 56	6 58	7 00	7 03	7 05	7 08	7 10	7 13	7 16	7 18	7 21
23 12 N	30	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 01	7 03	7 05	7 08	7 10	7 13	7 16	7 18	7 21
22 50 N	July 5	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 01	7 03	7 05	7 08	7 10	7 12	7 15	7 18	7 21
22 17	10	6 46	6 47	6 49	6 51	6 53	6 55	6 57	7 00	7 02	7 04	7 07	7 09	7 12	7 14	7 17	7 19
21 35	15	6 45	6 47	6 48	6 50	6 52	6 54	6 56	6 59	7 01	7 03	7 05	7 07	7 10	7 12	7 15	7 17
20 44	20	6 43	6 45	6 47	6 49	6 51	6 52	6 54	6 57	6 59	7 01	7 03	7 05	7 07	7 10	7 12	7 14
19 44	25	6 42	6 43	6 45	6 47	6 49	6 50	6 52	6 54	6 56	6 58	7 00	7 02	7 04	7 07	7 09	7 11
18 36 N	30	6 40	6 41	6 43	6 44	6 46	6 48	6 49	6 51	6 53	6 55	6 57	6 59	7 01	7 03	7 05	7 07
17 20 N	Aug. 4	6 37	6 38	6 40	6 41	6 43	6 45	6 46	6 48	6 49	6 51	6 53	6 54	6 56	6 58	7 00	7 02
15 57	9	6 34	6 35	6 37	6 38	6 40	6 41	6 42	6 44	6 45	6 47	6 48	6 50	6 52	6 54	6 55	6 57
14 28	14	6 31	6 32	6 33	6 34	6 36	6 37	6 38	6 40	6 41	6 42	6 44	6 45	6 47	6 48	6 50	6 51
12 53	19	6 27	6 28	6 29	6 30	6 31	6 32	6 34	6 35	6 36	6 37	6 38	6 40	6 41	6 42	6 44	6 45
11 13	24	6 23	6 24	6 25	6 26	6 27	6 28	6 29	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 38	6 39
9 29 N	29	6 19	6 19	6 20	6 21	6 22	6 23	6 24	6 24	6 25	6 26	6 27	6 28	6 29	6 30	6 31	6 32
7 40 N	Sept. 3	6 14	6 15	6 16	6 16	6 17	6 18	6 18	6 19	6 20	6 20	6 21	6 22	6 23	6 24	6 26	6 27
5 49	8	6 10	6 10	6 11	6 11	6 12	6 12	6 13	6 13	6 14	6 14	6 15	6 15	6 16	6 17	6 18	6 19
3 55	13	6 05	6 05	6 06	6 06	6 06	6 06	6 07	6 07	6 08	6 08	6 08	6 09	6 09	6 09	6 10	6 11
2 00	18	6 00	6 00	6 00	6 01	6 01	6 01	6 01	6 01	6 02	6 02	6 02	6 02	6 02	6 02	6 03	6 03
0 03 N	23	5 56	5 56	5 55	5 55	5 55	5 56	5 55	5 55	5 55	5 56	5 56	5 56	5 56	5 56	5 56	5 56
1 54 S	28	5 51	5 51	5 50	5 50	5 50	5 50	5 50	5 50	5 49	5 49	5 49	5 49	5 49	5 49	5 48	5 48
3 51 S	Oct. 3	5 46	5 46	5 46	5 45	5 45	5 45	5 44	5 44	5 44	5 43	5 43	5 43	5 42	5 42	5 41	5 41
5 46	8	5 42	5 41	5 41	5 40	5 40	5 39	5 39	5 38	5 38	5 37	5 37	5 36	5 36	5 35	5 34	5 34
7 40	13	5 38	5 37	5 36	5 36	5 35	5 34	5 34	5 33	5 32	5 32	5 31	5 30	5 29	5 29	5 28	5 27
9 31	18	5 34	5 33	5 32	5 31	5 30	5 30	5 29	5 28	5 27	5 26	5 25	5 24	5 23	5 22	5 21	5 20
11 18	23	5 30	5 29	5 28	5 27	5 26	5 25	5 24	5 23	5 22	5 21	5 20	5 19	5 18	5 17	5 16	5 14
13 02 S	28	5 27	5 26	5 25	5 24	5 22	5 21	5 20	5 19	5 18	5 17	5 15	5 14	5 13	5 11	5 10	5 09
14 40 S	Nov. 2	5 24	5 23	5 22	5 20	5 19	5 18	5 16	5 15	5 14	5 12	5 10	5 10	5 08	5 06	5 05	5 03
16 12	7	5 22	5 20	5 19	5 18	5 16	5 15	5 13	5 12	5 10	5 09	5 07	5 06	5 04	5 02	5 01	4 59
17 38	12	5 20	5 18	5 17	5 16	5 14	5 12	5 11	5 09	5 07	5 06	5 04	5 02	5 00	4 59	4 57	4 55
18 55	17	5 19	5 17	5 15	5 14	5 12	5 10	5 09	5 07	5 05	5 03	5 01	5 00	4 58	4 56	4 54	4 52
20 05	22	5 18	5 16	5 14	5 13	5 10	5 09	5 08	5 06	5 04	5 02	4 59	4 58	4 56	4 53	4 51	4 49
21 05 S	27	5 18	5 16	5 14	5 12	5 10	5 09	5 07	5 05	5 03	5 01	4 58	4 56	4 54	4 52	4 50	4 47
21 55 S	Dec. 2	5 18	5 16	5 14	5 13	5 11	5 09	5 07	5 05	5 02	5 00	4 58	4 56	4 53	4 51	4 49	4 46
22 35	7	5 19	5 17	5 15	5 14	5 11	5 09	5 08	5 05	5 03	5 00	4 58	4 56	4 53	4 51	4 49	4 46
23 04	12	5 21	5 19	5 17	5 15	5 13	5 10	5 08	5 06	5 04	5 02	4 59	4 57	4 54	4 52	4 50	4 47
23 21	17	5 23	5 21	5 19	5 17	5 14	5 12	5 10	5 08	5 06	5 03	5 01	4 59	4 56	4 54	4 51	4 48
23 27	22	5 25	5 23	5 21	5 19	5 17	5 15	5 13	5 10	5 08	5 06	5 03	5 01	4 58	4 56	4 53	4 51
23 21 S	27	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 13	5 11	5 09	5 06	5 01	5 01	4 59	4 56	4 54
23 03 S	Jan. 1	5 31	5 29	5 27	5 25	5 23	5 21	5 19	5 17	5 14	5 12	5 10	5 08	5 05	5 03	5 00	4 57

Declination.	Approx. date.	North Latitude.															
		37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	48°	49°	50°	51°	52°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	7 13	7 16	7 19	7 22	7 25	7 28	7 31	7 35	7 39	7 42	7 46	7 50	7 54	7 59	8 03	8 08
22 37	6	7 13	7 16	7 19	7 22	7 25	7 28	7 31	7 34	7 38	7 41	7 45	7 49	7 53	7 58	8 02	8 07
21 58	11	7 13	7 16	7 19	7 21	7 24	7 27	7 30	7 33	7 37	7 40	7 44	7 47	7 51	7 55	8 00	8 04
21 08	16	7 12	7 14	7 17	7 20	7 23	7 26	7 29	7 32	7 35	7 38	7 41	7 45	7 49	7 53	7 57	8 01
20 07	21	7 10	7 12	7 14	7 17	7 19	7 22	7 25	7 28	7 31	7 34	7 38	7 41	7 45	7 49	7 53	7 57
18 58	26	7 06	7 09	7 11	7 14	7 16	7 19	7 22	7 24	7 27	7 31	7 34	7 37	7 40	7 43	7 46	7 50
17 39 S	31	7 04	7 06	7 08	7 10	7 12	7 15	7 17	7 19	7 22	7 25	7 28	7 31	7 33	7 37	7 40	7 43
16 13 S	Feb. 5	6 59	7 01	7 03	7 05	7 07	7 09	7 11	7 13	7 16	7 19	7 21	7 24	7 26	7 29	7 32	7 35
14 40	10	6 54	6 56	6 58	7 00	7 01	7 03	7 05	7 07	7 09	7 12	7 14	7 16	7 18	7 21	7 24	7 27
13 01	15	6 48	6 50	6 52	6 54	6 56	6 58	6 59	7 01	7 02	7 04	7 06	7 08	7 10	7 12	7 14	7 16
11 16	20	6 43	6 44	6 46	6 47	6 48	6 49	6 51	6 52	6 54	6 56	6 58	6 59	7 01	7 03	7 05	7 07
9 28 S	25	6 37	6 38	6 40	6 41	6 42	6 43	6 44	6 45	6 46	6 47	6 49	6 50	6 51	6 53	6 55	6 56
7 30 S	Mar. 2	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 37	6 38	6 39	6 40	6 40	6 42	6 43	6 44	6 45
5 34	7	6 22	6 23	6 24	6 25	6 25	6 26	6 27	6 27	6 28	6 28	6 29	6 30	6 31	6 32	6 33	6 34
3 37	12	6 15	6 16	6 16	6 17	6 17	6 17	6 18	6 18	6 19	6 20	6 20	6 21	6 21	6 22	6 22	6 22
1 39 S	17	6 08	6 08	6 09	6 09	6 09	6 09	6 09	6 09	6 09	6 09	6 10	6 10	6 10	6 11	6 11	6 11
0 20 N	22	6 01	6 01	6 01	6 01	6 00	6 00	6 00	6 00	6 00	6 00	6 00	6 00	6 00	6 00	6 00	5 59
2 18 N	27	5 52	5 52	5 53	5 53	5 52	5 52	5 51	5 51	5 50	5 50	5 50	5 50	5 49	5 49	5 48	5 48
4 15 N	Apr. 1	5 45	5 45	5 45	5 45	5 45	5 44	5 43	5 43	5 42	5 41	5 40	5 40	5 39	5 38	5 37	5 36
6 09	6	5 37	5 37	5 37	5 37	5 36	5 35	5 34	5 33	5 32	5 31	5 31	5 30	5 28	5 27	5 26	5 24
8 02	11	5 30	5 29	5 29	5 29	5 27	5 26	5 25	5 24	5 23	5 21	5 20	5 19	5 18	5 16	5 15	5 13
9 51	16	5 23	5 22	5 22	5 22	5 21	5 19	5 18	5 16	5 15	5 13	5 12	5 10	5 08	5 06	5 05	5 03
11 35	21	5 17	5 16	5 15	5 14	5 12	5 10	5 09	5 07	5 04	5 03	5 01	4 59	4 57	4 55	4 53	4 50
13 15 N	26	5 10	5 09	5 08	5 07	5 05	5 03	5 01	4 59	4 57	4 55	4 53	4 51	4 49	4 46	4 44	4 41
14 50 N	May 1	5 04	5 02	5 01	5 00	4 58	4 56	4 54	4 52	4 49	4 47	4 45	4 43	4 40	4 37	4 34	4 31
16 19	6	4 59	4 57	4 55	4 54	4 52	4 50	4 47	4 45	4 42	4 40	4 37	4 34	4 32	4 29	4 25	4 22
17 42	11	4 54	4 52	4 50	4 49	4 46	4 44	4 41	4 39	4 36	4 33	4 30	4 27	4 23	4 20	4 16	4 12
18 55	16	4 50	4 48	4 46	4 44	4 41	4 38	4 35	4 32	4 30	4 27	4 23	4 20	4 16	4 13	4 10	4 06
19 58	21	4 46	4 44	4 42	4 40	4 37	4 34	4 31	4 28	4 25	4 21	4 18	4 14	4 10	4 07	4 03	3 58
21 00	26	4 43	4 41	4 38	4 36	4 32	4 29	4 26	4 23	4 20	4 17	4 13	4 09	4 05	4 01	3 56	3 51
21 48 N	31	4 41	4 38	4 36	4 33	4 30	4 26	4 23	4 19	4 16	4 12	4 08	4 04	4 00	3 55	3 51	3 47
22 28 N	June 5	4 40	4 37	4 34	4 31	4 28	4 24	4 21	4 17	4 14	4 10	4 06	4 01	3 57	3 52	3 48	3 43
22 57	10	4 39	4 36	4 33	4 30	4 26	4 23	4 20	4 16	4 12	4 08	4 04	3 59	3 55	3 50	3 46	3 40
23 17	15	4 39	4 36	4 33	4 30	4 26	4 23	4 19	4 15	4 12	4 08	4 03	3 59	3 54	3 49	3 45	3 39
23 26	20	4 40	4 36	4 33	4 30	4 27	4 23	4 20	4 16	4 12	4 08	4 04	3 59	3 54	3 49	3 45	3 39
23 25	25	4 40	4 37	4 34	4 31	4 27	4 24	4 20	4 16	4 13	4 09	4 04	3 59	3 55	3 50	3 44	3 39
23 14 N	30	4 43	4 40	4 37	4 33	4 29	4 26	4 23	4 18	4 15	4 11	4 06	4 02	3 57	3 52	3 47	3 42
22 52 N	July 5	4 45	4 42	4 39	4 36	4 33	4 30	4 26	4 22	4 19	4 15	4 10	4 06	4 02	3 57	3 52	3 46
22 21	10	4 48	4 45	4 42	4 39	4 36	4 33	4 30	4 26	4 22	4 19	4 14	4 10	4 06	4 01	3 56	3 51
21 40	15	4 51	4 48	4 45	4 42	4 39	4 36	4 33	4 29	4 26	4 22	4 18	4 14	4 10	4 05	4 01	3 56
20 50	20	4 55	4 52	4 49	4 46	4 43	4 40	4 37	4 34	4 31	4 27	4 23	4 19	4 16	4 11	4 07	4 03
19 50	25	4 59	4 56	4 53	4 50	4 48	4 45	4 42	4 39	4 36	4 33	4 29	4 25	4 22	4 18	4 13	4 09
18 43 N	30	5 03	5 00	4 57	4 55	4 52	4 50	4 47	4 44	4 41	4 38	4 35	4 32	4 29	4 25	4 21	4 16
17 28 N	Aug. 4	5 07	5 04	5 01	4 59	4 56	4 54	4 51	4 49	4 46	4 43	4 40	4 37	4 34	4 31	4 27	4 24
16 06	9	5 10	5 08	5 06	5 04	5 02	5 00	4 58	4 55	4 53	4 51	4 48	4 45	4 41	4 38	4 35	4 32
14 37	14	5 15	5 13	5 11	5 09	5 07	5 05	5 03	5 01	4 59	4 57	4 54	4 52	4 48	4 45	4 43	4 40
13 03	19	5 19	5 17	5 15	5 14	5 12	5 10	5 09	5 07	5 05	5 03	5 01	4 59	4 55	4 53	4 50	4 48
11 23	24	5 24	5 22	5 20	5 18	5 16	5 15	5 13	5 12	5 10	5 08	5 06	5 04	5 02	5 00	4 58	4 56
9 39 N	29	5 28	5 27	5 25	5 23	5 22	5 21	5 20	5 18	5 17	5 15	5 14	5 12	5 10	5 08	5 06	5 04
7 51 N	Sept. 3	5 31	5 30	5 29	5 28	5 27	5 26	5 26	5 24	5 23	5 22	5 20	5 18	5 17	5 16	5 14	5 13
6 00	8	5 36	5 35	5 34	5 33	5 32	5 31	5 31	5 30	5 29	5 28	5 27	5 25	5 24	5 23	5 22	5 21
4 07	13	5 40	5 39	5 38	5 37	5 36	5 36	5 35	5 34	5 34	5 33	5 32	5 32	5 31	5 29	5 29	5 28
2 11	18	5 45	5 44	5 43	5 42	5 42	5 42	5 41	5 41	5 41	5 40	5 40	5 40	5 39	5 39	5 38	5 37
0 15 N	23	5 49	5 48	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 46	5 45
1 42 S	28	5 53	5 53	5 52	5 52	5 52	5 52	5 53	5 53	5 53	5 53	5 53	5 54	5 54	5 53	5 53	5 54
3 39 S	Oct. 3	5 57	5 57	5 57	5 57	5 57	5 58	5 58	5 59	5 59	6 00	6 00	6 00	6 00	6 01	6 01	6 02
5 35	8	6 02	6 02	6 02	6 02	6 03	6 03	6 04	6 05	6 05	6 06	6 07	6 08	6 08	6 09	6 10	6 10
7 28	13	6 06	6 07	6 07	6 07	6 08	6 09	6 10	6 11	6 12	6 13	6 14	6 15	6 15	6 16	6 18	6 19
9 20	18	6 11	6 12	6 12	6 12	6 12	6 14	6 15	6 16	6 18	6 19	6 20	6 22	6 23	6 25	6 26	6 27
11 08	23	6 15	6 16	6 17	6 18	6 19	6 21	6 22	6 24	6 25	6 27	6 28	6 30	6 31	6 33	6 35	6 37
12 51 S	28	6 20	6 21	6 22	6 23	6 25	6 27	6 28	6 30	6 32	6 34	6 36	6 38	6 39	6 41	6 43	6 46
14 30 S	Nov. 2	6 26	6 27	6 28	6 29	6 31	6 33	6 35	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 52	6 55
16 03	7	6 31	6 32	6 32	6 34	6 36	6 38	6 40	6 42	6 45	6 47	6 50	6 52	6 55	6 51	7 00	7 03
17 29	12	6 36	6 38	6 38	6 40	6 42	6 44	6 47	6 49	6 52	6 54	6 57	7 00	7 02	7 05	7 08	7 11
18 48	17	6 41	6 43	6 44	6 46	6 49	6 51	6 54	6 57	6 59	7 02	7 05	7 08	7 11	7 14	7 18	7 21
19 58	22	6 46	6 48	6 50	6 52	6 55	6 57	7 00	7 08	7 06	7 09	7 12	7 16	7 19	7 22	7 26	7 30
20 59 S	27	6 51	6 53	6 55	6 57	7 00	7 03	7 06	7 09	7 12	7 15	7 19	7 23	7 26	7 29	7 34	7 38
21 51 S	Dec. 2	6 56	6 58	7 00	7 02	7 05	7 08	7 11	7 14	7 17	7 20	7 24	7 28	7 32	7 36	7 41	7 44
22 32	7	7 00	7 03	7 05	7 07	7 10	7 13	7 17	7 20	7 23	7 27	7 31	7 35	7 39	7 43	7 48	7 52
23 02	12	7 04	7 07	7 10	7 11	7 15	7 18	7 21	7 25	7 28	7 32	7 36	7 40	7 44	7 49	7 53	7 58
23 20	17	7 07	7 10	7 13	7 15	7 18	7 21	7 25	7 28	7 32	7 35	7 40	7 44	7 48	7 53	7 57	8 02
23 27	22	7 10	7 13	7 16	7 18	7 21	7 24	7 27	7 31	7 35	7 38	7 42	7 47	7 51	7 55	8 00	8 05
23 22 S	27	7 12	7 15	7 18	7 20	7 23	7 26	7 29	7 33	7 37	7 40	7 44	7 48	7 52	7 56	8 02	8 07
23 05 S	Jan. 1	7 13	7 16	7 19	7 22	7 25	7 28	7 31	7 35	7 39	7 42	7 46	7 50	7 54	7 59	8 03	8 08

Declination.	Approx. date.	North Latitude.															
		37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	48°	49°	50°	51°	52°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	4 54	4 51	4 48	4 45	4 42	4 39	4 36	4 33	4 29	4 25	4 21	4 17	4 13	4 09	4 04	3 59
22 34	6	4 58	4 55	4 53	4 50	4 47	4 45	4 42	4 38	4 34	4 31	4 27	4 23	4 19	4 15	4 10	4 05
21 53	11	5 04	5 01	4 58	4 55	4 52	4 49	4 46	4 43	4 39	4 36	4 33	4 29	4 25	4 21	4 17	4 12
21 02	16	5 09	5 06	5 03	5 00	4 57	4 55	4 52	4 49	4 46	4 43	4 39	4 36	4 32	4 28	4 24	4 20
20 01	21	5 14	5 12	5 09	5 06	5 03	5 01	4 58	4 55	4 52	4 49	4 46	4 43	4 40	4 36	4 32	4 29
18 50	26	5 18	5 16	5 14	5 11	5 08	5 06	5 04	5 01	4 58	4 56	4 53	4 50	4 47	4 43	4 40	4 36
17 31 S	31	5 24	5 21	5 19	5 17	5 15	5 12	5 11	5 09	5 06	5 04	5 01	4 59	4 56	4 52	4 48	4 45
16 04 S	Feb. 5	5 29	5 27	5 25	5 23	5 21	5 19	5 17	5 15	5 12	5 10	5 08	5 06	5 03	5 00	4 58	4 55
14 30	10	5 35	5 33	5 31	5 29	5 27	5 25	5 24	5 22	5 20	5 18	5 16	5 13	5 11	5 09	5 06	5 04
12 51	15	5 41	5 39	5 37	5 35	5 33	5 32	5 30	5 28	5 27	5 25	5 23	5 21	5 20	5 17	5 15	5 13
11 06	20	5 46	5 45	5 43	5 41	5 40	5 39	5 38	5 36	5 35	5 33	5 32	5 30	5 28	5 26	5 25	5 22
9 16 S	25	5 51	5 50	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 41	5 39	5 38	5 37	5 35	5 34	5 33
7 18 S	Mar. 2	5 56	5 55	5 54	5 53	5 52	5 51	5 50	5 49	5 49	5 48	5 47	5 46	5 45	5 44	5 43	5 42
5 23	7	6 00	6 00	5 59	5 58	5 59	5 58	5 57	5 56	5 56	5 56	5 55	5 53	5 53	5 52	5 51	5 50
3 25	12	6 05	6 05	6 05	6 04	6 04	6 04	6 04	6 03	6 03	6 02	6 02	6 01	6 00	6 00	6 00	5 59
1 27 S	17	6 10	6 09	6 09	6 09	6 09	6 09	6 08	6 08	6 08	6 08	6 08	6 08	6 07	6 07	6 07	6 07
0 32 N	22	6 14	6 14	6 14	6 14	6 14	6 14	6 14	6 15	6 15	6 15	6 15	6 15	6 15	6 15	6 15	6 16
2 30 N	27	6 19	6 19	6 19	6 19	6 19	6 20	6 20	6 21	6 21	6 22	6 22	6 23	6 23	6 24	6 24	6 24
4 26 N	Apr. 1	6 23	6 24	6 24	6 24	6 25	6 26	6 27	6 27	6 28	6 28	6 29	6 30	6 31	6 32	6 33	6 33
6 21	6	6 27	6 28	6 29	6 29	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 37	6 38	6 38	6 40	6 41
8 13	11	6 32	6 33	6 34	6 34	6 35	6 36	6 37	6 39	6 40	6 41	6 43	6 44	6 46	6 46	6 48	6 50
10 01	16	6 36	6 37	6 39	6 39	6 40	6 42	6 43	6 45	6 46	6 48	6 50	6 51	6 53	6 55	6 56	6 58
11 46	21	6 41	6 42	6 43	6 44	6 46	6 47	6 49	6 51	6 53	6 55	6 57	6 59	7 01	7 03	7 05	7 07
13 25 N	26	6 45	6 46	6 47	6 49	6 51	6 53	6 55	6 57	6 59	7 01	7 03	7 06	7 08	7 10	7 12	7 15
14 59 N	May 1	6 49	6 51	6 53	6 54	6 56	6 58	7 00	7 03	7 05	7 07	7 10	7 13	7 15	7 18	7 20	7 24
16 27	6	6 54	6 56	6 57	6 59	7 01	7 04	7 06	7 09	7 11	7 14	7 17	7 20	7 23	7 25	7 28	7 32
17 48	11	6 58	7 00	7 02	7 04	7 07	7 09	7 12	7 15	7 17	7 20	7 23	7 27	7 30	7 32	7 36	7 40
19 02	16	7 02	7 04	7 06	7 09	7 11	7 14	7 17	7 20	7 23	7 26	7 30	7 33	7 37	7 40	7 44	7 48
20 04	21	7 06	7 09	7 11	7 13	7 16	7 19	7 22	7 25	7 28	7 32	7 35	7 39	7 43	7 46	7 51	7 55
21 05	26	7 10	7 13	7 15	7 18	7 21	7 24	7 26	7 31	7 34	7 37	7 41	7 45	7 49	7 53	7 57	8 02
21 53 N	31	7 14	7 17	7 20	7 22	7 26	7 29	7 32	7 36	7 39	7 43	7 47	7 51	7 55	7 59	8 04	8 09
22 31 N	June 5	7 17	7 20	7 22	7 25	7 28	7 31	7 35	7 38	7 42	7 46	7 50	7 55	7 59	8 03	8 08	8 12
23 00	10	7 20	7 23	7 25	7 28	7 31	7 34	7 37	7 41	7 45	7 49	7 54	7 58	8 03	8 07	8 12	8 17
23 18	15	7 22	7 25	7 28	7 31	7 34	7 38	7 41	7 45	7 49	7 53	7 57	8 02	8 06	8 11	8 16	8 21
23 26	20	7 23	7 26	7 29	7 32	7 36	7 39	7 43	7 47	7 51	7 54	7 59	8 04	8 08	8 13	8 18	8 23
23 24	25	7 24	7 27	7 30	7 33	7 37	7 40	7 44	7 47	7 51	7 55	8 00	8 04	8 09	8 14	8 20	8 24
23 12 N	30	7 24	7 27	7 30	7 33	7 37	7 40	7 43	7 47	7 51	7 55	7 59	8 04	8 08	8 14	8 19	8 25
22 50 N	July 5	7 24	7 27	7 30	7 33	7 37	7 40	7 43	7 47	7 51	7 55	7 59	8 03	8 08	8 13	8 18	8 23
22 17	10	7 22	7 25	7 28	7 31	7 34	7 38	7 41	7 45	7 49	7 52	7 56	8 01	8 05	8 10	8 15	8 19
21 35	15	7 20	7 23	7 26	7 29	7 32	7 35	7 39	7 42	7 45	7 49	7 53	7 57	8 01	8 05	8 10	8 15
20 44	20	7 17	7 20	7 23	7 26	7 29	7 32	7 35	7 38	7 41	7 45	7 48	7 52	7 56	8 01	8 06	8 10
19 44	25	7 13	7 16	7 19	7 22	7 25	7 27	7 30	7 33	7 36	7 39	7 43	7 47	7 50	7 54	7 58	8 02
18 36 N	30	7 09	7 12	7 15	7 17	7 20	7 22	7 25	7 28	7 31	7 33	7 37	7 40	7 43	7 48	7 52	7 56
17 20 N	Aug. 4	7 04	7 07	7 09	7 12	7 14	7 16	7 19	7 21	7 24	7 27	7 30	7 33	7 36	7 40	7 44	7 47
15 57	9	6 59	7 02	7 04	7 06	7 08	7 10	7 12	7 15	7 17	7 19	7 22	7 25	7 27	7 32	7 35	7 38
14 28	14	6 53	6 55	6 57	7 00	7 02	7 04	7 06	7 08	7 10	7 12	7 15	7 16	7 20	7 23	7 25	7 28
12 53	19	6 47	6 49	6 51	6 53	6 55	6 57	6 58	7 00	7 02	7 04	7 06	7 07	7 10	7 13	7 15	7 18
11 13	24	6 40	6 42	6 44	6 46	6 48	6 49	6 50	6 52	6 54	6 55	6 57	6 58	7 01	7 03	7 05	7 07
9 29 N	29	6 33	6 35	6 36	6 38	6 40	6 41	6 42	6 43	6 45	6 46	6 48	6 49	6 51	6 52	6 54	6 56
7 40 N	Sept. 3	6 28	6 29	6 30	6 30	6 32	6 32	6 33	6 35	6 36	6 37	6 38	6 39	6 40	6 42	6 43	6 45
5 49	8	6 20	6 21	6 22	6 22	6 23	6 24	6 25	6 26	6 26	6 27	6 28	6 29	6 30	6 31	6 32	6 33
3 55	13	6 12	6 13	6 14	6 14	6 15	6 15	6 16	6 16	6 17	6 17	6 18	6 19	6 19	6 20	6 21	6 22
2 00	18	6 03	6 04	6 05	6 06	6 06	6 06	6 07	6 07	6 07	6 08	6 08	6 08	6 09	6 09	6 09	6 10
0 03 N	23	5 56	5 57	5 57	5 58	5 58	5 58	5 58	5 58	5 58	5 58	5 58	5 58	5 58	5 58	5 58	5 58
1 54 S	28	5 48	5 49	5 49	5 49	5 49	5 49	5 49	5 48	5 48	5 48	5 48	5 48	5 47	5 47	5 47	5 46
3 51 S	Oct. 3	5 41	5 41	5 41	5 41	5 41	5 40	5 40	5 39	5 39	5 38	5 38	5 37	5 37	5 36	5 36	5 35
5 46	8	5 33	5 33	5 33	5 33	5 33	5 32	5 31	5 30	5 30	5 29	5 28	5 27	5 26	5 25	5 24	5 24
7 40	13	5 26	5 26	5 25	5 25	5 24	5 23	5 22	5 21	5 20	5 19	5 17	5 16	5 15	5 15	5 14	5 12
9 31	18	5 19	5 19	5 19	5 18	5 17	5 16	5 15	5 13	5 12	5 11	5 09	5 08	5 06	5 05	5 03	5 01
11 18	23	5 13	5 12	5 11	5 11	5 10	5 07	5 06	5 04	5 03	5 01	5 00	4 58	4 56	4 55	4 53	4 51
13 02 S	28	5 07	5 06	5 05	5 04	5 02	5 00	4 59	4 57	4 55	4 53	4 51	4 49	4 47	4 46	4 44	4 41
14 40 S	Nov. 2	5 02	5 00	4 59	4 58	4 56	4 54	4 52	4 50	4 48	4 46	4 43	4 41	4 39	4 36	4 33	4 31
16 12	7	4 57	4 55	4 54	4 53	4 51	4 48	4 46	4 44	4 41	4 39	4 37	4 34	4 31	4 29	4 26	4 23
17 38	12	4 53	4 51	4 49	4 48	4 45	4 43	4 41	4 38	4 35	4 33	4 30	4 27	4 24	4 22	4 19	4 15
18 55	17	4 49	4 48	4 46	4 44	4 42	4 38	4 36	4 33	4 30	4 27	4 24	4 21	4 18	4 16	4 12	4 08
20 05	22	4 47	4 45	4 43	4 40	4 38	4 35	4 32	4 29	4 26	4 23	4 20	4 17	4 13	4 09	4 05	4 01
21 05 S	27	4 44	4 42	4 40	4 37	4 34	4 31	4 28	4 25	4 22	4 19	4 15	4 12	4 09	4 05	4 01	3 57
21 55 S	Dec. 2	4 44	4 41	4 38	4 36	4 33	4 30	4 27	4 23	4 20	4 17	4 13	4 09	4 06	4 02	3 57	3 53
22 35	7	4 44	4 41	4 38	4 35	4 32	4 29	4 26	4 22	4 19	4 15	4 11	4 08	4 04	3 59	3 54	3 51
23 04	12	4 44	4 41	4 38	4 36	4 32	4 29	4 26	4 23	4 19	4 15	4 11	4 07	4 03	3 58	3 54	3 50
23 21	17	4 46	4 43	4 40	4 37	4 33	4 30	4 27	4 24	4 20	4 16	4 12	4 08	4 04	3 59	3 54	3 50
23 27	22	4 48	4 45	4 42	4 39	4 36	4 33	4 30	4 26	4 22	4 19	4 15	4 10	4 06	4 02	3 57	3 53
23 21 S	27	4 51	4 48	4 45	4 42	4 39	4 36	4 33	4 29	4 26	4 22	4 18	4 14	4 10	4 05	4 00	3 54
23 03 S	Jan. 1	4 54	4 51	4 48	4 45	4 42	4 39	4 36	4 32	4 29	4 25	4 21	4 17	4 13	4 09	4 04	3 59

Declination.	Approx. date.	North Latitude.															
		53°	54°	55°	56°	57°	58°	59°	60°	61°	62°	63°	64°	65°	66°	67°	68°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	8 13	8 19	8 24	8 31	8 37	8 45	8 53	9 02	9 11	9 23	9 34	9 49	10 05	10 27	10 57	.....
22 37	6	8 12	8 17	8 23	8 29	8 35	8 42	8 50	8 59	9 07	9 18	9 29	9 43	9 57	10 18	10 43	11 58
21 58	11	8 09	8 14	8 19	8 25	8 31	8 38	8 45	8 54	9 02	9 11	9 22	9 34	9 47	10 06	10 26	11 24
21 08	16	8 05	8 11	8 16	8 22	8 27	8 33	8 40	8 47	8 55	9 03	9 11	9 22	9 34	9 52	10 08	10 56
20 07	21	8 01	8 07	8 11	8 16	8 21	8 27	8 33	8 39	8 47	8 56	9 05	9 16	9 27	9 40	9 55	10 32
18 58	26	7 54	7 58	8 03	8 07	8 13	8 18	8 23	8 29	8 37	8 44	8 51	9 01	9 11	9 21	9 33	9 48
17 39 S	31	7 46	7 50	7 55	7 59	8 03	8 08	8 12	8 18	8 25	8 31	8 38	8 46	8 54	9 04	9 14	9 25
16 13 S	Feb. 5	7 38	7 41	7 46	7 49	7 53	7 57	8 01	8 06	8 11	8 18	8 23	8 30	8 37	8 45	8 55	9 04
14 40	10	7 30	7 33	7 35	7 40	7 43	7 47	7 50	7 54	7 59	8 03	8 08	8 15	8 21	8 27	8 35	8 43
13 01	15	7 19	7 22	7 25	7 27	7 30	7 33	7 36	7 40	7 44	7 49	7 53	7 58	8 03	8 09	8 16	8 22
11 16	20	7 09	7 11	7 13	7 17	7 19	7 22	7 24	7 27	7 30	7 34	7 37	7 42	7 46	7 50	7 56	8 01
9 28 S	25	6 57	6 59	7 02	7 05	7 06	7 08	7 11	7 13	7 15	7 18	7 21	7 24	7 28	7 31	7 35	7 40
7 30 S	Mar. 2	6 46	6 48	6 50	6 51	6 53	6 54	6 56	6 57	6 59	7 01	7 04	7 07	7 09	7 12	7 14	7 19
5 34	7	6 35	6 36	6 37	6 38	6 39	6 40	6 41	6 43	6 43	6 45	6 47	6 48	6 50	6 52	6 55	6 57
3 37	12	6 23	6 23	6 24	6 25	6 26	6 26	6 27	6 28	6 28	6 30	6 31	6 32	6 33	6 34	6 36	6 37
1 39 S	17	6 11	6 12	6 12	6 12	6 12	6 12	6 12	6 13	6 13	6 14	6 15	6 15	6 14	6 14	6 15	6 16
0 20 N	22	5 59	5 59	5 59	5 59	5 59	5 58	5 58	5 57	5 57	5 57	5 56	5 55	5 55	5 54	5 54	5 55
2 18 N	27	5 47	5 47	5 46	5 46	5 45	5 44	5 43	5 42	5 41	5 40	5 39	5 38	5 36	5 35	5 34	5 33
4 15 N	Apr. 1	5 35	5 35	5 34	5 33	5 31	5 30	5 29	5 27	5 25	5 24	5 23	5 21	5 19	5 17	5 15	5 13
6 09	6	5 23	5 22	5 20	5 19	5 18	5 16	5 14	5 12	5 10	5 07	5 05	5 02	4 59	4 57	4 54	4 51
8 02	11	5 11	5 10	5 09	5 07	5 05	5 02	5 00	4 57	4 54	4 51	4 48	4 45	4 42	4 38	4 34	4 30
9 51	16	5 01	4 59	4 56	4 54	4 51	4 48	4 45	4 42	4 39	4 35	4 32	4 28	4 23	4 18	4 14	4 08
11 35	21	4 49	4 46	4 43	4 40	4 37	4 34	4 30	4 27	4 24	4 19	4 15	4 10	4 05	3 59	3 52	3 44
13 15 N	26	4 39	4 36	4 33	4 29	4 26	4 22	4 18	4 13	4 09	4 03	3 58	3 53	3 47	3 39	3 31	3 22
14 50 N	May 1	4 28	4 25	4 22	4 18	4 14	4 09	4 05	3 59	3 54	3 48	3 43	3 35	3 28	3 20	3 10	3 00
16 19	6	4 18	4 15	4 11	4 07	4 02	3 57	3 52	3 46	3 40	3 33	3 27	3 18	3 10	2 59	2 48	36
17 42	11	4 09	4 05	4 00	3 55	3 51	3 45	3 39	3 32	3 27	3 19	3 12	3 02	2 52	2 40	2 26	2 11
18 55	16	4 01	3 56	3 51	3 47	3 42	3 35	3 29	3 21	3 14	3 06	2 57	2 45	2 34	2 20	2 03	1 43
19 58	21	3 53	3 49	3 44	3 38	3 32	3 25	3 19	3 10	3 02	2 53	2 42	2 29	2 16	1 59	1 38	1 12
21 00	26	3 46	3 42	3 36	3 30	3 23	3 16	3 09	2 59	2 50	2 39	2 29	2 13	1 58	1 37	1 10	0 15
21 48 N	31	3 41	3 35	3 29	3 22	3 16	3 08	3 01	2 50	2 40	2 28	2 16	1 58	1 41	1 16	0 34	.....
22 28 N	June 5	3 37	3 31	3 25	3 18	3 11	3 02	2 54	2 43	2 32	2 19	2 06	1 45	1 25	0 52	.....	.....
22 57	10	3 34	3 28	3 21	3 14	3 07	2 58	2 49	2 38	2 27	2 12	1 58	1 35	1 12	0 23	.....	.....
23 17	15	3 33	3 27	3 20	3 13	3 05	2 56	2 47	2 35	2 23	2 08	1 53	1 27	1 02	Does not set between—		
23 26	20	3 33	3 27	3 20	3 12	3 04	2 55	2 46	2 34	2 23	2 07	1 51	1 24	0 57	June 11 and July 1	June 2 and July 11 40 days	May 26 and July 18 54 days
23 25	25	3 33	3 26	3 20	3 12	3 04	2 55	2 46	2 35	2 23	2 07	1 51	1 25	0 58			
23 14 N	30	3 35	3 29	3 23	3 15	3 07	2 58	2 49	2 38	2 27	2 12	1 57	1 32	1 08			
22 52 N	July 5	3 40	3 34	3 28	3 21	3 13	3 04	2 56	2 44	2 33	2 19	2 05	1 43	1 21	0 35		
22 21	10	3 46	3 40	3 34	3 27	3 19	3 11	3 03	2 52	2 41	2 28	2 14	1 55	1 37	1 04	.....	.....
21 40	15	3 50	3 44	3 38	3 32	3 25	3 17	3 09	3 00	2 51	2 39	2 26	2 10	1 54	1 28	0 50	.....
20 50	20	3 56	3 51	3 46	3 39	3 33	3 26	3 19	3 10	3 02	2 52	2 41	2 27	2 12	1 50	1 25	0 41
19 50	25	4 04	3 59	3 54	3 48	3 42	3 36	3 29	3 21	3 13	3 05	2 55	2 43	2 29	2 11	1 52	1 24
18 43 N	30	4 12	4 07	4 03	3 57	3 52	3 46	3 40	3 33	3 26	3 17	3 07	2 57	2 45	2 31	2 15	1 55
17 28 N	Aug. 4	4 20	4 15	4 11	4 06	4 01	3 55	3 50	3 44	3 37	3 29	3 21	3 11	3 02	3 50	2 37	2 22
16 06	9	4 28	4 24	4 20	4 15	4 11	4 06	4 01	3 56	3 50	3 44	3 37	3 29	3 21	3 12	3 00	2 48
14 37	14	4 37	4 33	4 29	4 25	4 21	4 17	4 13	4 08	4 03	3 57	3 51	3 45	3 38	3 29	3 23	3 10
13 03	19	4 45	4 42	4 38	4 35	4 32	4 28	4 24	4 20	4 16	4 11	4 05	3 59	3 53	3 47	3 38	3 30
11 23	24	4 54	4 51	4 49	4 46	4 43	4 40	4 37	4 33	4 30	4 24	4 20	4 15	4 10	4 04	3 58	3 51
9 39 N	29	5 02	5 00	4 57	4 55	4 52	4 50	4 47	4 44	4 41	4 38	4 34	4 30	4 25	4 21	4 16	4 10
7 51 N	Sept. 3	5 11	5 09	5 07	5 05	5 03	5 00	4 58	4 56	4 53	4 51	4 48	4 44	4 41	4 37	4 33	4 29
6 00	8	5 20	5 18	5 16	5 14	5 13	5 11	5 10	5 08	5 06	5 04	5 02	4 58	4 56	4 53	4 51	4 47
4 07	13	5 27	5 26	5 25	5 24	5 23	5 22	5 21	5 20	5 18	5 17	5 15	5 14	5 12	5 10	5 07	5 05
2 11	18	5 36	5 36	5 36	5 35	5 34	5 34	5 33	5 32	5 32	5 31	5 30	5 28	5 27	5 6	5 24	5 23
0 15 N	23	5 45	5 45	5 44	5 44	5 44	5 44	5 43	5 43	5 43	5 43	5 43	5 43	5 42	5 41	5 41	5 40
1 42 S	28	5 54	5 53	5 53	5 54	5 54	5 54	5 55	5 55	5 55	5 56	5 56	5 56	5 56	5 57	5 57	5 58
3 39 S	Oct. 3	6 03	6 03	6 03	6 04	6 05	6 05	6 06	6 07	6 08	6 09	6 10	6 10	6 12	6 13	6 14	6 16
5 35	8	6 12	6 12	6 13	6 14	6 15	6 16	6 18	6 19	6 21	6 22	6 24	6 25	6 27	6 29	6 31	6 34
7 28	13	6 20	6 22	6 22	6 24	6 26	6 28	6 29	6 31	6 33	6 36	6 38	6 41	6 42	6 46	6 49	6 52
9 20	18	6 29	6 31	6 32	6 34	6 37	6 39	6 41	6 44	6 47	6 49	6 52	6 55	6 58	7 02	7 06	7 11
11 08	23	6 39	6 41	6 42	6 45	6 48	6 50	6 53	6 56	7 00	7 03	7 07	7 10	7 14	7 19	7 25	7 30
12 51 S	28	6 48	6 51	6 52	6 56	6 59	7 02	7 05	7 09	7 13	7 17	7 22	7 26	7 30	7 37	7 43	7 50
14 30 S	Nov. 2	6 58	7 01	7 03	7 06	7 10	7 14	7 18	7 22	7 27	7 32	7 36	7 42	7 48	7 55	8 02	8 10
16 03	7	7 06	7 09	7 12	7 16	7 20	7 24	7 29	7 34	7 39	7 45	7 50	7 57	8 03	8 12	8 20	8 30
17 29	12	7 15	7 19	7 22	7 26	7 31	7 36	7 41	7 47	7 52	7 59	8 06	8 13	8 21	8 31	8 41	8 53
18 48	17	7 25	7 30	7 33	7 38	7 43	7 48	7 54	8 00	8 07	8 13	8 20	8 29	8 38	8 48	9 00	9 13
19 58	22	7 34	7 39	7 42	7 48	7 53	7 59	8 05	8 12	8 19	8 28	8 36	8 46	8 55	9 09	9 24	9 40
20 59 S	27	7 43	7 48	7 51	7 57	8 03	8 10	8 16	8 24	8 31	8 41	8 50	9 02	9 13	9 27	9 44	10 06
21 51 S	Dec. 2	7 49	7 54	7 59	8 06	8 12	8 19	8 26	8 34	8 43	8 53	9 02	9 16	9 28	9 45	10 06	10 33
22 32	7	7 57	8 02	8 08	8 14	8 20	8 28	8 35	8 44	8 53	9 03	9 13	9 28	9 42	10 02	10 26	11 35
23 02	12	8 02	8 08	8 14	8 20	8 27	8 35	8 42	8 52	9 01	9 12	9 22	9 38	9 53	10 15	10 44	Does
23 20	17	8 07	8 13	8 18	8 25	8 32	8 40	8 48	8 57	9 07	9 18	9 29	9 45	10 01	10 24	11 00	not
23 27	22	8 10	8 16	8 21	8 28	8 35	8 43	8 51	9 01	9 10	9 21	9 32	9 49	10 05	10 29	11 04	rise
23 22 S	27	8 12	8 18	8 24	8 30	8 37	8 45	8 53	9 03	9 12	9 22	9 33	9 49	10 05	10 27	11 02	Dec. 11 to
23 05 S	Jan. 1	8 13	8 19	8 24	8 31	8 37	8 45	8 53	9 02	9 11	9 23	9 34	9 49	10 05	10 27	10 57	Jan. 2

Declination.	Approx. date.	North Latitude. 53°	54°	55°	56°	57°	58°	59°	60°	61°	62°	63°	64°	65°	66°	67°	68°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	3 54	3 49	3 43	3 36	3 30	3 22	3 14	3 05	2 56	2 44	2 32	2 17	2 02	1 40	1 11	.....
22 34	6	4 00	3 54	3 48	3 42	3 36	3 29	3 21	3 13	3 04	2 52	2 41	2 27	2 13	1 54	1 30	0 50
21 53	11	4 07	4 01	3 56	3 50	3 44	3 37	3 30	3 22	3 14	3 04	2 54	2 41	2 27	2 11	1 57	1 23
21 02	16	4 15	4 10	4 05	3 59	3 54	3 47	3 41	3 33	3 26	3 17	3 08	2 56	2 45	2 30	2 13	1 50
20 01	21	4 24	4 19	4 14	4 09	4 04	3 58	3 52	3 45	3 38	3 29	3 22	3 10	3 00	2 47	2 32	2 16
18 50	26	4 32	4 27	4 23	4 18	4 14	4 08	4 03	3 57	3 51	3 44	3 35	3 26	3 18	3 07	2 55	2 41
17 31 S	31	4 42	4 37	4 34	4 29	4 25	4 20	4 15	4 10	4 05	3 58	3 52	3 43	3 35	3 26	3 16	3 04
16 04 S	Feb. 5	4 52	4 47	4 44	4 40	4 36	4 32	4 28	4 23	4 18	4 13	4 07	4 00	3 53	3 45	3 36	3 27
14 30	10	5 01	4 57	4 55	4 51	4 48	4 44	4 41	4 36	4 32	4 27	4 23	4 17	4 10	4 04	3 57	3 49
12 51	15	5 11	5 08	5 06	5 03	5 00	4 57	4 54	4 50	4 46	4 42	4 38	4 33	4 27	4 22	4 16	4 09
11 06	20	5 20	5 17	5 15	5 13	5 11	5 08	5 05	5 03	5 00	4 56	4 53	4 48	4 44	4 40	4 35	4 30
9 16 S	25	5 31	5 29	5 27	5 25	5 23	5 21	5 19	5 16	5 14	5 12	5 08	5 05	5 02	4 58	4 54	4 50
7 18 S	Mar. 2	5 40	5 38	5 37	5 36	5 34	5 32	5 31	5 29	5 28	5 26	5 24	5 20	5 18	5 16	5 12	5 09
5 23	7	5 49	5 48	5 47	5 46	5 44	5 43	5 42	5 41	5 41	5 39	5 37	5 35	5 34	5 32	5 29	5 27
3 25	12	5 58	5 57	5 57	5 56	5 56	5 55	5 55	5 54	5 53	5 52	5 52	5 50	5 50	5 49	5 47	5 46
1 27 S	17	6 07	6 06	6 06	6 06	6 06	6 06	6 06	6 06	6 05	6 05	6 05	6 05	6 05	6 05	6 04	6 04
0 32 N	22	6 16	6 15	6 16	6 16	6 16	6 17	6 17	6 18	6 18	6 19	6 19	6 20	6 21	6 21	6 21	6 21
2 30 N	27	6 25	6 26	6 26	6 27	6 28	6 29	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 38	6 38	6 40
4 26 N	Apr. 1	6 34	6 35	6 36	6 37	6 39	6 40	6 42	6 43	6 45	6 46	6 48	6 50	6 52	6 54	6 57	6 59
6 21	6	6 43	6 43	6 45	6 47	6 48	6 50	6 52	6 55	6 57	6 59	7 02	7 04	7 06	7 10	7 13	7 17
8 13	11	6 52	6 53	6 55	6 57	6 59	7 01	7 04	7 07	7 09	7 13	7 16	7 20	7 23	7 26	7 31	7 36
10 01	16	7 00	7 02	7 04	7 07	7 10	7 13	7 16	7 19	7 22	7 26	7 30	7 35	7 39	7 43	7 49	7 55
11 46	21	7 09	7 12	7 15	7 18	7 21	7 25	7 28	7 32	7 36	7 40	7 45	7 50	7 55	8 00	8 07	8 14
13 25 N	26	7 18	7 20	7 24	7 27	7 31	7 35	7 39	7 44	7 49	7 54	7 59	8 05	8 11	8 19	8 26	8 35
14 59 N	May 1	7 27	7 30	7 33	7 37	7 41	7 46	7 51	7 56	8 02	8 07	8 13	8 20	8 27	8 36	8 45	8 56
16 27	6	7 36	7 39	7 43	7 47	7 52	7 57	8 03	8 09	8 15	8 22	8 28	8 37	8 46	8 56	9 07	9 20
17 48	11	7 44	7 48	7 52	7 57	8 02	8 08	8 14	8 21	8 28	8 35	8 43	8 53	9 04	9 15	9 29	9 45
19 02	16	7 52	7 56	8 01	8 07	8 12	8 19	8 25	8 33	8 41	8 50	8 59	9 10	9 22	9 36	9 53	10 15
20 04	21	8 00	8 04	8 09	8 16	8 22	8 29	8 36	8 44	8 53	9 03	9 13	9 26	9 40	9 56	10 16	10 44
21 05	26	8 07	8 12	8 17	8 25	8 31	8 38	8 46	8 55	9 04	9 16	9 27	9 42	9 58	10 18	10 46	.....
21 53 N	31	8 15	8 20	8 25	8 33	8 40	8 47	8 55	9 05	9 16	9 27	9 40	9 57	10 16	10 42	11 27	.....
22 31 N	June 5	8 19	8 25	8 31	8 39	8 46	8 54	9 03	9 14	9 24	9 37	9 51	10 11	10 32	11 56	.....	.....
23 00	10	8 24	8 30	8 36	8 44	8 51	9 00	9 10	9 21	9 32	9 46	10 01	10 23	10 47	11 41	.....	.....
23 18	15	8 28	8 34	8 40	8 47	8 55	9 04	9 14	9 26	9 36	9 51	10 07	10 31	10 57	Does not set between—		
23 26	20	8 30	8 35	8 42	8 49	8 57	9 06	9 16	9 28	9 39	9 54	10 10	10 35	11 03	June 11	June 2	May 26
23 24	25	8 30	8 37	8 43	8 51	8 58	9 08	9 17	9 29	9 40	9 54	10 09	10 34	11 02	and	and	and
23 12 N	30	8 31	8 38	8 44	8 51	8 59	9 08	9 17	9 28	9 39	9 54	10 09	10 33	10 57	July 1.	July 11.	July 18,
22 50 N	July 5	8 29	8 35	8 41	8 48	8 56	9 04	9 13	9 24	9 24	9 48	10 02	10 24	10 43	11 31	40 days.	54 days.
22 17	10	8 26	8 32	8 38	8 45	8 52	9 00	9 08	9 18	9 28	9 40	9 54	10 12	10 31	11 03	.....	.....
21 35	15	8 21	8 27	8 33	8 39	8 46	8 53	9 01	9 10	9 20	9 31	9 43	9 59	10 15	10 37	11 16	.....
20 44	20	8 15	8 21	8 27	8 33	8 39	8 46	8 53	9 01	9 10	9 20	9 31	9 46	10 01	10 18	10 44	11 24
19 44	25	8 08	8 13	8 18	8 22	8 29	8 35	8 42	8 50	8 58	9 08	9 17	9 30	9 43	9 57	10 15	10 38
18 36 N	30	8 00	8 05	8 10	8 15	8 20	8 26	8 32	8 39	8 46	8 54	9 04	9 14	9 24	9 38	9 53	10 12
17 20 N	Aug. 4	7 51	7 56	8 00	8 05	8 09	8 15	8 20	8 26	8 33	8 41	8 48	8 57	9 07	9 18	9 31	9 46
15 57	9	7 42	7 46	7 50	7 54	7 58	8 03	8 07	8 13	8 19	8 25	8 32	8 40	8 49	8 58	9 09	9 22
14 28	14	7 32	7 36	7 39	7 42	7 46	7 50	7 54	7 59	8 04	8 10	8 16	8 23	8 31	8 38	8 48	8 58
12 53	19	7 22	7 24	7 27	7 30	7 33	7 37	7 41	7 45	7 49	7 54	7 59	8 05	8 11	8 18	8 26	8 33
11 13	24	7 10	7 13	7 15	7 19	7 21	7 25	7 28	7 31	7 35	7 39	7 43	7 48	7 53	7 58	8 04	8 11
9 29 N	29	6 59	7 01	7 03	7 05	7 07	7 10	7 13	7 16	7 19	7 22	7 25	7 30	7 34	7 38	7 43	7 19
7 40 N	Sept. 3	6 47	6 49	6 51	6 52	6 54	6 56	6 58	7 01	7 03	7 06	7 08	7 12	7 16	7 19	7 23	7 28
5 49	8	6 35	6 37	6 38	6 39	6 41	6 42	6 44	6 46	6 47	6 49	6 51	6 55	6 57	7 00	7 03	7 07
3 55	13	6 23	6 24	6 25	6 26	6 27	6 29	6 30	6 31	6 32	6 34	6 35	6 37	6 38	6 41	6 43	6 55
2 00	18	6 11	6 12	6 12	6 13	6 14	6 15	6 15	6 16	6 17	6 17	6 18	6 19	6 20	6 21	6 23	6 24
0 03 N	23	5 59	5 59	5 59	5 59	5 59	6 00	6 00	6 00	6 00	6 00	6 00	6 01	6 02	6 02	6 02	6 03
1 54 S	28	5 47	5 47	5 46	5 46	5 46	5 45	5 45	5 45	5 44	5 44	5 43	5 43	5 43	5 42	5 42	5 41
3 51 S	Oct. 3	5 35	5 35	5 34	5 33	5 32	5 31	5 31	5 30	5 29	5 28	5 26	5 25	5 25	5 23	5 22	5 20
5 46	8	5 23	5 22	5 21	5 20	5 19	5 17	5 16	5 15	5 13	5 11	5 10	5 08	5 06	5 04	5 02	4 59
7 40	13	5 11	5 10	5 09	5 07	5 06	5 04	5 02	5 00	4 58	4 55	4 53	4 50	4 48	4 46	4 42	4 39
9 31	18	5 01	4 59	4 57	4 55	4 53	4 50	4 48	4 46	4 43	4 40	4 37	4 33	4 31	4 27	4 22	4 18
11 18	23	4 49	4 48	4 45	4 44	4 41	4 38	4 36	4 32	4 28	4 24	4 21	4 16	4 13	4 08	4 03	3 57
13 02 S	28	4 38	4 37	4 34	4 31	4 28	4 25	4 22	4 18	4 14	4 09	4 05	4 00	3 55	3 50	3 43	3 36
14 40 S	Nov. 2	4 29	4 26	4 23	4 19	4 16	4 11	4 08	4 04	3 59	3 55	3 49	3 44	3 37	3 31	3 25	3 16
16 12	7	4 20	4 17	4 14	4 10	4 05	4 02	3 57	3 52	3 47	3 41	3 35	3 28	3 22	3 13	3 05	2 55
17 38	12	4 12	4 09	4 05	4 01	3 56	3 51	3 46	3 40	3 35	3 28	3 22	3 14	3 05	2 56	2 46	2 34
18 55	17	4 04	4 01	3 57	3 52	3 47	3 41	3 36	3 29	3 23	3 16	3 08	2 59	2 51	2 39	2 27	2 12
20 05	22	3 58	3 53	3 49	3 43	3 38	3 32	3 26	3 19	3 13	3 04	2 56	2 46	2 36	2 33	2 09	1 50
21 05 S	27	3 52	3 48	3 43	3 37	3 32	3 25	3 18	3 10	3 04	2 55	2 46	2 34	2 23	2 08	1 49	1 27
21 55 S	Dec. 2	3 48	3 44	3 38	3 32	3 27	3 19	3 12	3 04	2 57	2 47	2 37	2 24	2 11	1 52	1 31	1 03
22 35	7	3 45	3 40	3 25	3 28	3 22	3 14	3 07	2 58	2 49	2 38	2 27	2 12	1 57	1 40	1 12	0 35
23 04	12	3 44	3 39	3 33	3 27	3 20	3 12	3 05	2 55	2 46	2 34	2 23	2 07	1 51	1 29	0 58	Does
23 21	17	3 44	3 38	3 32	3 26	3 19	3 11	3 03	2 54	2 44	2 32	2 20	2 04	1 47	1 24	0 49	not
23 27	22	3 47	3 41	3 36	3 29	3 22	3 14	3 06	2 56	2 47	2 35	2 23	2 06	1 49	1 25	0 49	rise
23 21 S	27	3 49	3 43	3 37	3 31	3 24	3 16	3 08	2 59	2 49	2 37	2 25	2 09	1 52	1 30	0 56	Dec. 11
23 03 S	Jan. 1	3 54	3 49	3 43	3 36	3 30	3 22	3 14	3 05	2 56	2 44	2 32	2 17	2 02	1 40	1 11	to Jan. 2.

Declination:	Approx. date.	North Latitude.															
		69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	80°	82°	84°	86°	88°	90°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05S	Jan. 1	Sun does not rise—				Sun does not rise between—				Sun does not rise between—				Sun does not rise between—			
22 37	6	Rises	Nov.27	Nov.22	Nov.18	Nov.14	Nov.10	Nov. 6	Nov. 4	Nov. 1	Oct. 28	Oct. 23	Oct. 17	Oct. 12	Oct. 7	Oct. 1	Sept.27
21 58	11	Jan. 11	to	to	to	and	and	and	and	and	and	and	and	and	and	and	and
21 08	16	11 05	Jan. 16	Jan. 21	Jan. 25	Jan.24:	Feb. 2:	Feb. 6:	Feb. 9:	Feb.11:	Feb.14:	Feb.20:	Feb.26:	Mar. 3:	Mar. 8:	Mar.13:	Mar.18:
20 07	21	10 35	11 03	.....	.....	77	85	93	98	103	110	121	133	143	153	164	173
18 58	26	10 05	10 26	10 56	11 38	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
17 39S	31	9 39	9 56	10 16	10 44	11 18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 13S	Feb. 5	9 15	9 28	9 43	10 03	10 23	11 03	11 53	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 40	10	8 53	9 03	9 14	9 28	9 44	10 08	10 31	11 28	.....	.....	.....	.....	.....	.....	.....	.....
13 01	15	8 29	8 38	8 48	8 58	9 11	9 25	9 43	10 11	10 36	.....	.....	.....	.....	.....	.....	.....
11 16	20	8 07	8 14	8 22	8 30	8 39	8 51	9 03	9 18	9 38	10 10	.....	.....	.....	.....	.....	.....
9 28S	25	7 45	7 30	7 56	8 02	8 09	8 18	8 28	8 40	8 54	9 12	10 06	.....	.....	.....	.....	.....
7 30S	Mar. 2	7 22	7 26	7 31	7 35	7 40	7 47	7 55	8 03	8 13	8 25	8 55	9 52	.....	.....	.....	.....
5 34	7	6 59	7 52	7 06	7 09	7 13	7 17	7 22	7 28	7 34	7 41	8 00	8 32	9 33	.....	.....	.....
3 37	12	6 38	6 39	6 41	6 43	6 45	6 48	6 51	6 54	6 57	7 02	7 11	7 28	7 56	9 22	.....	.....
1 39S	17	6 16	6 16	6 16	6 18	6 18	6 19	6 19	6 21	6 21	6 22	6 25	6 29	6 36	6 50	7 32	.....
0 20N	22	5 54	5 53	5 52	5 52	5 50	5 49	5 48	5 47	5 45	5 43	5 38	5 31	5 18	4 53	3 30	.....
2 18N	27	5 31	5 29	5 26	5 25	5 22	5 20	5 17	5 14	5 09	5 06	4 51	4 31	3 55	2 30	.....	.....
4 15N	Apr. 1	5 09	5 06	5 03	5 00	4 55	5 01	4 55	4 40	4 32	4 24	4 00	3 23	2 05	.....	.....	.....
6 09	6	4 47	4 42	4 37	4 32	4 26	4 19	4 12	3 53	3 53	3 40	3 03	1 54	.....	.....	.....	.....
8 02	11	4 24	4 18	4 12	4 05	3 58	3 49	3 39	3 26	3 10	2 51	1 47	.....	.....	.....	.....	.....
9 51	16	4 01	3 53	3 45	3 35	3 25	3 12	2 58	2 40	2 15	1 45	.....	.....	.....	.....	.....	.....
11 35	21	3 37	3 28	3 17	3 05	2 52	2 34	2 13	1 47	0 46	.....	.....	.....	.....	.....	.....	.....
13 15N	26	3 13	3 01	2 48	2 33	2 13	1 48	1 08	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 50N	May 1	2 47	2 33	2 15	1 55	1 25	0 37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 19	6	2 20	2 02	1 37	1 05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 42	11	1 50	1 24	0 43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 55	16	1 13	0 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 58	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 00	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 48N	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 28N	June 5	Sun does not set between—				Sun does not set between—				Sun does not set between—				Sun does not set between—			
22 57	10	May 21	May 16	May 12	May 9	May 5	May 2	Apr. 28	Apr. 25	Apr. 22	Apr. 19	Apr. 14	Apr. 8	Apr. 3	Mar. 29	Mar. 24	Mar. 19
23 17	15	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 26	20	July 23:	July 27:	July 31:	Aug. 4:	Aug. 8:	Aug. 12:	Aug. 15:	Aug. 18:	Aug. 22:	Aug. 24:	Aug. 29:	Sept. 4:	Sept. 9:	Sept. 15:	Sept. 20:	Sept. 26:
23 25	25	64	73	81	88	96	103	110	116	123	128	138	150	160	171	181	192
23 14N	30	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
22 52N	July 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 21	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 40	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 50	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 50	25	0 44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 43N	30	1 29	0 51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 28N	Aug. 4	2 04	1 41	1 09	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 06	9	2 35	2 16	1 57	1 23	0 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 37	14	2 58	2 45	2 20	2 10	1 44	1 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13 08	19	3 20	3 10	2 56	2 44	2 26	2 05	1 35	0 44	.....	.....	.....	.....	.....	.....	.....	.....
11 23	24	3 43	3 31	3 25	3 13	3 00	2 44	2 26	2 01	1 27	.....	.....	.....	.....	.....	.....	.....
9 39N	29	4 03	3 57	3 49	3 40	3 30	3 18	3 05	2 45	2 37	1 55	.....	.....	.....	.....	.....	.....
7 51N	Sept. 3	4 23	4 18	4 12	4 06	3 57	3 48	3 37	3 24	3 08	2 49	1 54	.....	.....	.....	.....	.....
6 00	8	4 43	4 59	4 33	4 29	4 22	4 16	4 08	4 00	3 48	3 36	3 03	1 58	.....	.....	.....	.....
4 07	13	5 02	4 59	4 56	4 53	4 48	4 44	4 38	4 33	4 25	4 17	3 56	3 20	2 08	.....	.....	.....
2 11	18	5 20	5 19	5 17	5 15	5 12	5 10	5 06	5 03	4 57	4 54	4 42	4 28	3 50	2 30	.....	.....
0 15N	23	5 39	5 39	5 38	5 38	5 36	5 26	5 34	5 33	5 31	5 29	5 25	5 18	5 07	4 44	3 29	.....
1 42S	28	5 59	5 59	5 59	6 00	6 00	6 01	6 01	6 03	6 03	6 04	6 08	6 12	6 20	6 35	7 21	.....
3 39S	Oct. 3	6 17	6 18	6 21	6 22	6 23	6 26	6 26	6 31	6 34	6 38	6 51	7 08	7 36	8 40	.....	.....
5 35	8	6 35	6 39	6 42	6 45	6 48	6 52	6 52	7 02	7 08	7 15	7 37	8 09	9 10	.....	.....	.....
7 28	13	6 55	6 59	7 04	7 08	7 13	7 19	7 19	7 31	7 43	7 55	8 28	9 24	.....	.....	.....	.....
9 20	18	7 15	7 20	7 26	7 32	7 39	7 47	7 47	8 07	8 20	8 41	9 32	.....	.....	.....	.....	.....
11 08	23	7 36	7 42	7 50	7 58	8 07	8 18	8 18	8 40	9 08	9 36	.....	.....	.....	.....	.....	.....
12 51S	28	7 57	8 05	8 14	8 25	8 38	8 52	8 52	9 25	10 15	.....	.....	.....	.....	.....	.....	.....
14 30S	Nov. 2	8 19	8 29	8 40	8 54	9 11	9 33	10 04	10 45	.....	.....	.....	.....	.....	.....	.....	.....
16 03	7	8 42	8 55	9 10	9 28	9 54	10 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 29	12	9 06	9 23	9 42	10 09	11 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 48	17	9 31	9 54	10 22	11 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 58	22	9 58	10 31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 59S	27	10 34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 51S	Dec. 2	Sun does not rise between—				Sun does not rise between—				Sun does not rise between—				Sun does not rise between—			
22 32	7	Dec. 3	Nov.27	Nov.22	Nov.18	Nov.14	Nov.10	Nov. 6	Nov. 4	Nov. 1	Oct. 28	Oct. 23	Oct. 17	Oct. 12	Oct. 7	Oct. 1	Sept.27
23 02	12	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 20	17	Jan.10:	Jan.16:	Jan.21:	Jan.25:	Jan.29:	Feb. 2:	Feb. 6:	Feb. 9:	Feb.11:	Feb.14:	Feb.20:	Feb.26:	Mar. 3:	Mar. 8:	Mar.13:	Mar.18:
23 27	22	39	51	61	69	77	85	93	98	103	110	121	133	143	153	164	173
23 22S	27	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
23 05S	Jan. 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Declination.	Approx. date.	North Latitude.															
		69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	80°	82°	84°	86°	88°	90°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m	h. m.	h. m.	h. m.	h. m.	h. m.
23 03S	Jan. 1	Rises	Sun does not rise—			Sun does not rise between—				Sun does not rise between—				Sun does not rise between—			
22 34	6	Jan. 11	Nov. 27	Nov. 22	Nov. 18	Nov. 14	Nov. 10	Nov. 6	Nov. 4	Nov. 1	Oct. 28	Oct. 23	Oct. 17	Oct. 12	Oct. 7	Oct. 1	Sept. 27
21 53	11	0 34	to	to	to	and	and	and	and	and	and	and	and	and	and	and	and
21 02	16	1 24	Jan. 16	Jan. 21	Jan. 25	Jan. 24;	Feb. 2;	Feb. 6;	Feb. 9;	Feb. 11;	Feb. 14;	Feb. 20;	Feb. 26;	Mar. 3;	Mar. 8;	Mar. 13;	Mar. 18;
20 01	21	1 52	1 25	.....	.....	77	85	93	98	103	110	121	133	143	153	164	173
18 50	26	2 24	2 03	1 34	0 38	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
17 31S	31	2 50	2 34	2 14	1 48	1 03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 04S	Feb. 5	3 16	3 03	2 47	2 29	2 06	1 32	0 38	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 30	10	3 40	3 29	3 16	3 02	2 45	2 26	2 00	1 13	.....	.....	.....	.....	.....	.....	.....	.....
12 51	15	4 02	3 53	3 44	3 33	3 19	3 08	2 47	2 23	1 37	0 42	.....	.....	.....	.....	.....	.....
11 06	20	4 23	4 16	4 09	4 00	3 50	3 39	3 26	3 10	2 50	2 24	.....	.....	.....	.....	.....	.....
9 16S	25	4 44	4 38	4 33	4 26	4 18	4 10	4 01	3 50	3 37	3 31	2 29	.....	.....	.....	.....	.....
7 18S	Mar. 2	5 06	5 02	4 57	4 52	4 46	4 41	4 33	4 26	4 16	4 06	3 36	2 42	.....	.....	.....	.....
5 23	7	5 25	5 23	5 19	5 16	5 12	5 08	5 03	4 58	4 52	4 45	4 27	3 57	3 00	.....	.....	.....
3 25	12	5 44	5 43	5 41	5 40	5 37	5 35	5 32	5 29	5 26	5 22	5 14	4 58	4 33	3 37	.....	.....
1 27S	17	6 34	6 04	6 03	6 03	6 02	6 01	6 00	6 00	5 59	5 59	5 57	5 54	5 49	5 39	5 09	Rises
0 32N	22	6 23	6 24	6 24	6 25	6 26	6 27	6 28	6 30	6 32	6 34	6 41	6 50	7 06	7 33	9 16	Mar. 19
2 30N	27	6 42	6 44	6 46	6 48	6 50	6 54	6 57	7 01	7 05	7 11	7 26	7 47	8 25	10 02	.....	.....
4 26N	Apr. 1	7 02	7 05	7 08	7 12	7 16	7 21	7 26	7 33	7 40	7 48	8 13	8 52	10 18	.....	.....	.....
6 21	6	7 21	7 26	7 30	7 36	7 42	7 49	7 57	8 07	8 18	8 28	9 09	10 24	.....	.....	.....	.....
8 13	11	7 40	7 47	7 52	8 00	8 08	8 17	8 29	8 43	9 00	9 14	10 25	.....	.....	.....	.....	.....
10 01	16	8 01	8 09	8 17	8 27	8 36	8 49	9 05	9 25	9 46	10 22	.....	.....	.....	.....	.....	.....
11 46	21	8 23	8 32	8 43	8 55	9 08	9 25	9 49	10 18	.....	.....	.....	.....	.....	.....	.....	.....
13 25N	26	8 44	8 57	9 11	9 26	9 45	10 12	11 02	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 59N	May 1	9 07	9 24	9 40	10 03	10 32	11 34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 27	6	9 35	9 54	10 14	10 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 48	11	10 02	10 31	11 17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 02	16	10 40	11 43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 04	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 05	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 53N	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 31N	June 5	Sun does not set between—				Sun does not set between—				Sun does not set between—				Sun does not set between—			
23 00	10	May 21	May 16	May 12	May 9	May 5	May 2	Apr. 28	Apr. 25	Apr. 22	Apr. 19	Apr. 14	Apr. 8	Apr. 3	Mar. 29	Mar. 24	Mar. 19
23 18	15	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 26	20	July 23;	July 27;	July 31;	Aug. 4;	Aug. 8;	Aug. 12;	Aug. 15;	Aug. 18;	Aug. 22;	Aug. 24;	Aug. 29;	Sept. 4;	Sept. 9;	Sept. 15;	Sept. 20;	Sept. 26;
23 24	25	64	73	81	88	96	103	110	116	123	128	138	150	160	171	181	192
23 12N	30	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
22 50N	July 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 17	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 35	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 44	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 44	25	11 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 36N	30	10 35	11 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 20N	Aug. 4	10 05	10 27	10 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15 57	9	9 35	9 52	10 12	10 31	11 19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 28	14	9 09	9 22	9 37	9 55	10 19	11 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 53	19	8 43	8 54	9 06	9 20	9 37	11 02	10 28	11 26	.....	.....	.....	.....	.....	.....	.....	.....
11 13	24	8 19	8 28	8 37	8 47	9 02	9 18	9 37	10 02	10 34	.....	.....	.....	.....	.....	.....	.....
9 29N	29	7 55	8 03	8 10	8 18	8 29	8 40	8 55	9 12	9 34	10 01	.....	.....	.....	.....	.....	.....
7 40N	Sept. 3	7 32	7 38	7 44	7 51	7 59	8 08	8 19	8 31	8 45	9 04	9 56	.....	.....	.....	.....	.....
5 49	8	7 09	7 14	7 19	7 25	7 30	7 37	7 45	7 54	8 08	8 14	8 47	9 48	.....	.....	.....	.....
3 55	13	6 48	6 51	6 54	6 58	7 02	7 05	7 13	7 18	7 25	7 31	7 52	8 25	9 31	.....	.....	.....
2 00	18	6 25	6 27	6 29	6 32	6 32	6 37	6 42	6 44	6 49	6 51	7 02	7 20	7 57	9 03	.....	.....
0 03N	23	6 03	6 04	6 05	6 06	6 07	6 08	6 11	6 11	6 13	6 13	6 15	6 21	6 30	6 50	7 51	Sets
1 54S	28	5 41	5 41	5 41	5 41	5 40	5 39	5 40	5 38	5 37	5 31	5 29	5 24	5 14	4 55	3 56	Sept. 26
3 51S	Oct. 3	5 19	5 18	5 16	5 15	5 12	5 10	5 09	5 05	5 06	4 56	4 42	4 24	3 54	2 42	.....	.....
5 46	8	4 58	4 55	4 51	4 47	4 45	4 41	4 38	4 31	4 25	4 18	3 54	3 20	2 14	.....	.....	.....
7 40	13	4 36	4 31	4 26	4 23	4 17	4 11	4 05	3 56	3 46	3 34	2 59	1 58	.....	.....	.....	.....
9 31	18	4 14	4 58	4 02	3 56	3 49	3 40	3 31	3 18	3 04	2 45	1 50	.....	.....	.....	.....	.....
11 18	23	3 51	3 44	3 37	3 29	3 18	3 07	2 54	2 36	2 13	1 47	.....	.....	.....	.....	.....	.....
13 02S	28	3 29	3 20	3 10	3 00	2 47	2 41	2 12	1 47	1 04	.....	.....	.....	.....	.....	.....	.....
14 40S	Nov. 2	3 06	2 56	2 45	2 30	2 13	1 50	1 18	0 30	.....	.....	.....	.....	.....	.....	.....	.....
16 12	7	2 44	2 30	2 15	1 56	1 34	0 56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 38	12	2 20	2 03	1 42	1 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 55	17	1 54	1 33	1 03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 05	22	1 30	0 56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 05S	27	0 58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 55S	Dec. 2	Sun does not rise between—				Sun does not rise between—				Sun does not rise between—				Sun does not rise between—			
22 35	7	Dec. 3	Nov. 27	Nov. 22	Nov. 18	Nov. 14	Nov. 10	Nov. 6	Nov. 4	Nov. 1	Oct. 28	Oct. 23	Oct. 17	Oct. 12	Oct. 7	Oct. 1	Sept. 27
23 04	12	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 21	17	Jan. 10;	Jan. 16;	Jan. 21;	Jan. 25;	Jan. 29;	Feb. 2;	Feb. 6;	Feb. 9;	Feb. 11;	Feb. 14;	Feb. 20;	Feb. 26;	Mar. 3;	Mar. 8;	Mar. 13;	Mar. 18;
23 27	22	39	51	61	69	77	85	93	98	103	110	121	133	143	153	164	173
23 21S	27	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
23 03S	Jan. 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Declination.	Approx. date.	South Latitude.															
		0°	2°	4°	6°	8°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	5 59	5 55	5 52	5 49	5 45	5 42	5 40	5 38	5 36	5 34	5 33	5 31	5 29	5 27	5 25	5 23
22 37	6	6 02	5 59	5 56	5 52	5 49	5 45	5 44	5 42	5 40	5 38	5 37	5 35	5 33	5 31	5 29	5 27
21 58	11	6 04	6 01	5 58	5 55	5 51	5 47	5 45	5 44	5 42	5 40	5 39	5 37	5 35	5 33	5 31	5 30
21 08	16	6 06	6 03	6 00	5 57	5 54	5 50	5 48	5 47	5 45	5 43	5 42	5 40	5 38	5 36	5 35	5 33
20 07	21	6 07	6 04	6 01	5 58	5 55	5 52	5 51	5 49	5 47	5 46	5 44	5 43	5 41	5 39	5 38	5 36
18 58	26	6 09	6 06	6 04	6 01	5 58	5 55	5 54	5 52	5 51	5 50	5 48	5 46	5 45	5 43	5 42	5 40
17 39 S	31	6 10	6 07	6 05	6 02	6 00	5 57	5 56	5 55	5 53	5 52	5 51	5 49	5 48	5 46	5 45	5 44
16 13 S	Feb. 5	6 10	6 08	6 06	6 04	6 01	5 58	5 57	5 56	5 54	5 53	5 52	5 51	5 50	5 48	5 47	5 46
14 40	10	6 11	6 09	6 07	6 05	6 02	6 00	6 00	5 58	5 57	5 56	5 55	5 54	5 53	5 52	5 50	5 50
13 01	15	6 11	6 09	6 07	6 06	6 03	6 01	6 01	6 00	5 59	5 58	5 57	5 56	5 55	5 54	5 53	5 52
11 16	20	6 10	6 09	6 07	6 06	6 04	6 02	6 02	6 01	6 00	5 59	5 58	5 57	5 57	5 56	5 55	5 54
9 28 S	25	6 10	6 09	6 07	6 06	6 04	6 03	6 02	6 02	6 01	6 00	6 00	5 59	5 59	5 58	5 57	5 56
7 30 S	Mar. 2	6 09	6 08	6 07	6 06	6 04	6 03	6 02	6 02	6 01	6 00	6 00	5 59	5 59	5 58	5 58	5 57
5 34	7	6 07	6 07	6 06	6 06	6 04	6 04	6 03	6 03	6 03	6 02	6 02	6 01	6 01	6 00	6 00	6 00
3 37	12	6 06	6 06	6 05	6 05	6 04	6 04	6 04	6 04	6 03	6 03	6 03	6 02	6 02	6 02	6 02	6 01
1 39 S	17	6 05	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 03	6 03	6 03	6 03	6 03	6 03
0 20 N	22	6 03	6 03	6 03	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04	6 04
2 18 N	27	6 02	6 02	6 02	6 03	6 03	6 04	6 04	6 04	6 04	6 04	6 05	6 05	6 05	6 05	6 05	6 06
4 15 N	Apr. 1	6 00	6 01	6 01	6 02	6 03	6 03	6 03	6 03	6 03	6 04	6 04	6 04	6 05	6 05	6 05	6 06
6 09	6	5 59	6 00	6 00	6 02	6 02	6 03	6 04	6 04	6 05	6 05	6 06	6 06	6 07	6 07	6 08	6 08
8 02	11	5 57	5 59	6 00	6 01	6 02	6 03	6 04	6 04	6 05	6 06	6 06	6 07	6 08	6 08	6 09	6 09
9 51	16	5 56	5 58	5 59	6 00	6 02	6 03	6 04	6 05	6 06	6 06	6 07	6 08	6 09	6 09	6 10	6 11
11 35	21	5 55	5 57	5 58	6 00	6 02	6 03	6 04	6 05	6 06	6 07	6 08	6 09	6 10	6 11	6 12	6 12
13 15 N	26	5 54	5 56	5 58	6 00	6 02	6 03	6 04	6 05	6 06	6 07	6 08	6 09	6 10	6 11	6 12	6 13
14 50 N	May 1	5 53	5 55	5 58	6 00	6 02	6 04	6 05	6 06	6 08	6 09	6 10	6 11	6 12	6 13	6 14	6 16
16 19	6	5 53	5 55	5 58	6 00	6 02	6 05	6 06	6 07	6 09	6 10	6 11	6 12	6 14	6 15	6 16	6 17
17 42	11	5 52	5 55	5 58	6 00	6 03	6 05	6 07	6 08	6 10	6 11	6 12	6 14	6 15	6 16	6 18	6 19
18 55	16	5 52	5 55	5 58	6 01	6 03	6 06	6 08	6 09	6 11	6 12	6 14	6 15	6 17	6 18	6 20	6 21
19 58	21	5 52	5 56	5 58	6 01	6 04	6 07	6 09	6 10	6 12	6 14	6 15	6 17	6 18	6 20	6 22	6 23
21 00	26	5 53	5 56	5 59	6 02	6 05	6 08	6 10	6 12	6 13	6 15	6 17	6 18	6 20	6 21	6 23	6 25
21 48 N	31	5 53	5 57	6 00	6 03	6 06	6 10	6 12	6 13	6 15	6 16	6 18	6 20	6 22	6 23	6 25	6 27
22 28 N	June 5	5 54	5 58	6 01	6 05	6 08	6 11	6 13	6 14	6 16	6 18	6 20	6 22	6 23	6 25	6 27	6 29
22 57	10	5 55	5 59	6 02	6 06	6 09	6 12	6 14	6 16	6 18	6 20	6 21	6 23	6 25	6 27	6 29	6 31
23 17	15	5 56	6 00	6 03	6 07	6 10	6 13	6 14	6 16	6 18	6 20	6 22	6 23	6 25	6 27	6 29	6 31
23 26	20	5 57	6 01	6 04	6 08	6 11	6 15	6 17	6 18	6 20	6 22	6 24	6 26	6 28	6 30	6 32	6 33
23 25	25	5 58	6 02	6 05	6 09	6 12	6 16	6 18	6 19	6 21	6 23	6 25	6 27	6 29	6 31	6 32	6 34
23 14 N	30	5 59	6 03	6 06	6 10	6 13	6 16	6 17	6 19	6 21	6 23	6 25	6 27	6 29	6 31	6 32	6 34
22 52 N	July 5	6 00	6 04	6 07	6 11	6 14	6 17	6 18	6 20	6 21	6 23	6 25	6 27	6 29	6 31	6 32	6 34
22 21	10	6 01	6 04	6 08	6 11	6 14	6 18	6 19	6 21	6 23	6 24	6 26	6 28	6 30	6 32	6 33	6 35
21 40	15	6 02	6 05	6 08	6 11	6 14	6 18	6 19	6 21	6 23	6 24	6 26	6 28	6 29	6 31	6 33	6 34
20 50	20	6 02	6 05	6 08	6 11	6 14	6 17	6 19	6 21	6 22	6 24	6 25	6 27	6 28	6 30	6 32	6 33
19 50	25	6 02	6 05	6 08	6 11	6 14	6 17	6 18	6 20	6 21	6 23	6 24	6 26	6 27	6 29	6 30	6 32
18 43 N	30	6 02	6 05	6 08	6 11	6 13	6 16	6 17	6 19	6 20	6 21	6 23	6 24	6 26	6 27	6 28	6 30
17 28 N	Aug. 4	6 02	6 05	6 07	6 10	6 12	6 15	6 17	6 18	6 19	6 21	6 22	6 23	6 25	6 26	6 27	6 29
16 06	9	6 02	6 04	6 06	6 08	6 11	6 13	6 14	6 15	6 16	6 18	6 19	6 20	6 21	6 22	6 24	6 25
14 37	14	6 01	6 03	6 05	6 07	6 09	6 11	6 12	6 13	6 14	6 15	6 16	6 17	6 18	6 20	6 21	6 22
13 03	19	6 00	6 02	6 04	6 06	6 07	6 09	6 10	6 10	6 12	6 12	6 13	6 14	6 15	6 16	6 17	6 18
11 23	24	5 59	6 01	6 03	6 04	6 06	6 07	6 08	6 09	6 10	6 11	6 11	6 12	6 13	6 14	6 15	6 15
9 39 N	29	5 57	5 58	6 00	6 01	6 02	6 04	6 04	6 05	6 06	6 06	6 07	6 08	6 08	6 09	6 10	6 10
7 51 N	Sept. 3	5 56	5 57	5 58	5 59	6 00	6 01	6 01	6 02	6 02	6 03	6 03	6 04	6 04	6 05	6 06	6 06
6 00	8	5 54	5 55	5 56	5 56	5 57	5 58	5 58	5 59	5 59	5 59	6 00	6 00	6 00	6 01	6 02	6 02
4 07	13	5 52	5 53	5 53	5 54	5 54	5 55	5 55	5 55	5 55	5 56	5 56	5 56	5 56	5 57	5 57	5 57
2 11	18	5 51	5 51	5 51	5 51	5 51	5 52	5 52	5 52	5 52	5 52	5 52	5 52	5 52	5 52	5 53	5 53
0 15 N	23	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49
1 42 S	28	5 47	5 47	5 46	5 46	5 46	5 46	5 46	5 46	5 46	5 46	5 46	5 45	5 45	5 45	5 45	5 45
3 39 S	Oct. 3	5 45	5 45	5 44	5 44	5 43	5 43	5 43	5 43	5 42	5 42	5 42	5 41	5 41	5 41	5 40	5 40
5 35	8	5 44	5 43	5 42	5 41	5 40	5 40	5 39	5 39	5 38	5 38	5 37	5 37	5 36	5 36	5 35	5 35
7 28	13	5 43	5 41	5 40	5 39	5 38	5 37	5 36	5 36	5 35	5 35	5 34	5 33	5 33	5 32	5 31	5 31
9 20	18	5 42	5 40	5 38	5 37	5 36	5 35	5 35	5 34	5 33	5 33	5 32	5 31	5 30	5 29	5 29	5 28
11 08	23	5 41	5 39	5 37	5 36	5 34	5 33	5 33	5 32	5 31	5 30	5 29	5 28	5 27	5 26	5 25	5 24
12 51 S	28	5 40	5 38	5 36	5 34	5 32	5 31	5 31	5 30	5 29	5 27	5 27	5 25	5 24	5 23	5 22	5 21
14 30 S	Nov. 2	5 40	5 38	5 35	5 33	5 31	5 29	5 28	5 27	5 26	5 24	5 24	5 22	5 21	5 20	5 19	5 18
16 03	7	5 40	5 38	5 35	5 33	5 30	5 28	5 27	5 26	5 24	5 23	5 22	5 20	5 19	5 18	5 16	5 15
17 29	12	5 40	5 38	5 35	5 33	5 30	5 27	5 26	5 25	5 23	5 22	5 21	5 19	5 18	5 16	5 15	5 13
18 48	17	5 41	5 38	5 35	5 33	5 30	5 27	5 26	5 24	5 23	5 21	5 20	5 18	5 17	5 15	5 14	5 12
19 58	22	5 42	5 39	5 36	5 34	5 30	5 27	5 26	5 24	5 23	5 21	5 20	5 18	5 16	5 15	5 13	5 11
20 59 S	27	5 44	5 40	5 37	5 35	5 31	5 28	5 27	5 25	5 23	5 22	5 20	5 18	5 16	5 15	5 13	5 11
21 51 S	Dec. 2	5 45	5 42	5 39	5 36	5 32	5 29	5 28	5 26	5 24	5 22	5 21	5 19	5 17	5 15	5 13	5 11
22 32	7	5 47	5 43	5 40	5 37	5 33	5 30	5 28	5 26	5 25	5 23	5 21	5 19	5 17	5 15	5 13	5 11
23 02	12	5 50	5 46	5 43	5 40	5 36	5 32	5 30	5 28	5 26	5 24	5 23	5 21	5 19	5 17	5 15	5 13
23 20	17	5 52	5 49	5 45	5 42	5 38	5 34	5 32	5 30	5 28	5 26	5 25	5 23	5 21	5 19	5 17	5 15
23 27	22	5 54	5 51	5 48	5 44	5 41	5 37	5 35	5 34	5 32	5 30	5 28	5 26	5 24	5 22	5 20	5 18
23 22 S	27	5 57	5 54	5 50	5 47	5 43	5 39	5 37	5 35	5 33	5 31	5 30	5 28	5 26	5 24	5 22	5 20
23 05 S	Jan. 1	5 59	5 55	5 52	5 49	5 45	5 42	5 40	5 38	5 36	5 34	5 33	5 31	5 29	5 27	5 25	5 23

Declination.	Approx. date.	South Latitude.															
		0°	2°	4°	6°	8°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	6 08	6 12	6 15	6 18	6 22	6 25	6 27	6 29	6 31	6 32	6 34	6 36	6 38	6 40	6 42	6 44
22 34	6	6 10	6 14	6 17	6 20	6 24	6 27	6 29	6 31	6 32	6 34	6 36	6 38	6 40	6 41	6 43	6 45
21 53	11	6 12	6 16	6 18	6 22	6 25	6 28	6 29	6 31	6 33	6 34	6 36	6 38	6 40	6 41	6 43	6 45
21 02	16	6 14	6 17	6 20	6 23	6 26	6 29	6 30	6 32	6 33	6 34	6 37	6 38	6 40	6 42	6 43	6 45
20 01	21	6 15	6 18	6 21	6 24	6 27	6 30	6 32	6 33	6 35	6 36	6 38	6 39	6 41	6 43	6 44	6 46
18 50	26	6 17	6 20	6 22	6 25	6 28	6 30	6 32	6 33	6 35	6 36	6 38	6 39	6 40	6 42	6 44	6 45
17 31 S	31	6 17	6 20	6 23	6 25	6 28	6 30	6 31	6 33	6 34	6 35	6 37	6 38	6 40	6 41	6 42	6 44
16 04 S	Feb. 5	6 18	6 20	6 23	6 25	6 27	6 30	6 31	6 32	6 33	6 34	6 36	6 37	6 38	6 39	6 40	6 42
14 30	10	6 18	6 20	6 22	6 24	6 26	6 29	6 31	6 32	6 33	6 34	6 35	6 36	6 37	6 38	6 39	6 40
12 51	15	6 18	6 20	6 22	6 23	6 25	6 27	6 28	6 29	6 30	6 31	6 32	6 33	6 34	6 35	6 36	6 36
11 06	20	6 18	6 19	6 21	6 22	6 24	6 26	6 27	6 28	6 29	6 29	6 30	6 31	6 32	6 33	6 34	6 34
9 16 S	25	6 17	6 18	6 19	6 21	6 22	6 24	6 25	6 25	6 26	6 27	6 27	6 28	6 29	6 29	6 30	6 31
7 18 S	Mar. 2	6 16	6 17	6 18	6 19	6 20	6 21	6 21	6 22	6 22	6 23	6 23	6 24	6 24	6 25	6 26	6 26
5 23	7	6 15	6 15	6 16	6 17	6 18	6 19	6 20	6 20	6 20	6 21	6 21	6 22	6 22	6 22	6 23	6 23
3 25	12	6 14	6 14	6 14	6 15	6 15	6 16	6 16	6 16	6 16	6 16	6 17	6 17	6 17	6 17	6 18	6 18
1 27 S	17	6 12	6 12	6 12	6 12	6 12	6 13	6 13	6 13	6 13	6 13	6 13	6 13	6 13	6 13	6 14	6 14
0 32 N	22	6 11	6 10	6 10	6 10	6 10	6 11	6 11	6 11	6 11	6 11	6 11	6 10	6 11	6 10	6 10	6 10
2 30 N	27	6 09	6 08	6 08	6 08	6 07	6 08	6 08	6 07	6 07	6 07	6 07	6 07	6 07	6 06	6 06	6 06
4 26 N	Apr. 1	6 08	6 07	6 06	6 05	6 05	6 05	6 05	6 04	6 04	6 04	6 03	6 03	6 03	6 02	6 02	6 01
6 21	6	6 06	6 05	6 04	6 03	6 02	6 02	6 02	6 01	6 01	6 00	6 00	5 59	5 59	5 58	5 58	5 57
8 13	11	6 05	6 03	6 02	6 01	6 00	5 59	5 59	5 58	5 58	5 57	5 57	5 56	5 55	5 55	5 54	5 53
10 01	16	6 04	6 02	6 00	5 59	5 57	5 57	5 56	5 55	5 55	5 54	5 53	5 52	5 52	5 51	5 50	5 49
11 46	21	6 03	6 00	5 59	5 57	5 55	5 54	5 53	5 52	5 51	5 50	5 49	5 48	5 47	5 46	5 45	5 44
13 25 N	26	6 02	5 59	5 57	5 56	5 54	5 52	5 50	5 50	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 41
14 59 N	May 1	6 01	5 58	5 56	5 54	5 52	5 50	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 40	5 39	5 38
16 27	6	6 00	5 58	5 55	5 53	5 50	5 49	5 48	5 47	5 45	5 44	5 43	5 41	5 40	5 39	5 38	5 36
17 48	11	6 00	5 57	5 55	5 52	5 50	5 47	5 45	5 44	5 43	5 42	5 40	5 39	5 37	5 36	5 34	5 33
19 02	16	6 00	5 57	5 54	5 52	5 49	5 46	5 44	5 43	5 42	5 41	5 39	5 37	5 36	5 34	5 32	5 31
20 04	21	6 00	5 57	5 54	5 51	5 48	5 46	5 45	5 43	5 42	5 41	5 39	5 37	5 36	5 33	5 32	5 31
21 05	26	6 01	5 58	5 54	5 51	5 48	5 45	5 44	5 42	5 40	5 39	5 37	5 35	5 34	5 32	5 30	5 29
21 53 N	31	6 01	5 58	5 55	5 52	5 48	5 45	5 43	5 42	5 40	5 38	5 37	5 35	5 33	5 31	5 30	5 28
22 31 N	June 5	6 02	5 59	5 56	5 52	5 49	5 45	5 44	5 42	5 40	5 38	5 37	5 35	5 33	5 31	5 29	5 28
23 00	10	6 03	6 00	5 56	5 53	5 50	5 46	5 44	5 42	5 41	5 39	5 37	5 35	5 33	5 32	5 30	5 28
23 18	15	6 04	6 01	5 57	5 54	5 50	5 47	5 45	5 43	5 42	5 40	5 38	5 36	5 34	5 32	5 30	5 28
23 26	20	6 05	6 02	5 58	5 55	5 51	5 48	5 46	5 44	5 43	5 41	5 39	5 37	5 35	5 33	5 31	5 29
23 24	25	6 06	6 03	6 00	5 56	5 53	5 49	5 47	5 46	5 44	5 42	5 40	5 38	5 36	5 34	5 32	5 30
23 12 N	30	6 07	6 04	6 01	5 57	5 54	5 50	5 48	5 47	5 45	5 43	5 41	5 39	5 38	5 36	5 34	5 32
22 50 N	July 5	6 08	6 05	6 02	5 58	5 55	5 51	5 49	5 47	5 45	5 43	5 42	5 40	5 38	5 36	5 34	5 33
22 17	10	6 09	6 06	6 03	5 59	5 56	5 53	5 51	5 49	5 48	5 46	5 44	5 42	5 41	5 39	5 37	5 35
21 35	15	6 10	6 06	6 04	6 00	5 57	5 54	5 52	5 51	5 49	5 47	5 46	5 44	5 42	5 41	5 39	5 37
20 44	20	6 10	6 07	6 04	6 01	5 58	5 55	5 53	5 52	5 50	5 49	5 47	5 46	5 44	5 42	5 41	5 39
19 44	25	6 10	6 07	6 04	6 02	5 59	5 56	5 54	5 53	5 52	5 50	5 48	5 47	5 45	5 44	5 42	5 41
18 36 N	30	6 10	6 07	6 05	6 02	5 59	5 57	5 55	5 54	5 53	5 51	5 50	5 48	5 47	5 46	5 44	5 43
17 20 N	Aug. 4	6 10	6 07	6 05	6 02	6 00	5 57	5 56	5 55	5 54	5 52	5 51	5 50	5 48	5 47	5 46	5 44
15 57	9	6 09	6 07	6 04	6 02	6 00	5 58	5 56	5 55	5 54	5 53	5 52	5 51	5 50	5 48	5 47	5 46
14 28	14	6 08	6 06	6 04	6 02	6 00	5 58	5 57	5 56	5 55	5 54	5 53	5 52	5 51	5 50	5 48	5 47
12 53	19	6 07	6 05	6 03	6 02	6 00	5 58	5 57	5 56	5 55	5 54	5 54	5 53	5 52	5 51	5 50	5 49
11 13	24	6 06	6 04	6 03	6 01	6 00	5 58	5 57	5 56	5 56	5 55	5 54	5 54	5 52	5 52	5 51	5 50
9 29 N	29	6 05	6 03	6 02	6 00	5 59	5 58	5 57	5 56	5 56	5 55	5 55	5 54	5 53	5 53	5 52	5 51
7 40 N	Sept. 3	6 03	6 02	6 01	6 00	5 59	5 58	5 57	5 57	5 56	5 56	5 55	5 55	5 54	5 54	5 53	5 52
5 49	8	6 02	6 00	6 00	5 59	5 58	5 57	5 57	5 56	5 56	5 56	5 55	5 55	5 55	5 54	5 54	5 53
3 55	13	6 00	5 59	5 58	5 58	5 57	5 57	5 57	5 56	5 56	5 56	5 56	5 55	5 55	5 55	5 55	5 54
2 00	18	5 58	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57
0 03 N	23	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 56	5 57	5 57
1 54 S	28	5 55	5 54	5 55	5 55	5 55	5 56	5 56	5 56	5 56	5 56	5 57	5 57	5 57	5 57	5 58	5 58
3 51 S	Oct. 3	5 53	5 53	5 54	5 54	5 55	5 56	5 56	5 56	5 57	5 57	5 57	5 58	5 58	5 58	5 59	5 59
5 46	8	5 52	5 52	5 53	5 54	5 55	5 56	5 56	5 56	5 57	5 57	5 58	5 58	5 59	5 59	6 00	6 00
7 40	13	5 50	5 51	5 52	5 53	5 54	5 56	5 56	5 57	5 57	5 58	5 59	5 59	6 00	6 00	6 01	6 02
9 31	18	5 49	5 50	5 51	5 53	5 54	5 56	5 57	5 57	5 58	5 59	6 00	6 00	6 01	6 02	6 03	6 04
11 18	23	5 48	5 50	5 51	5 53	5 55	5 56	5 57	5 58	5 59	6 00	6 01	6 02	6 03	6 04	6 05	6 06
13 02 S	28	5 48	5 49	5 51	5 53	5 55	5 57	5 58	5 59	6 00	6 01	6 02	6 04	6 04	6 06	6 07	6 08
14 40 S	Nov. 2	5 48	5 49	5 52	5 54	5 56	5 58	6 00	6 01	6 02	6 03	6 04	6 05	6 06	6 08	6 09	6 10
16 12	7	5 48	5 50	5 52	5 55	5 57	6 00	6 01	6 02	6 04	6 05	6 05	6 07	6 09	6 10	6 11	6 13
17 38	12	5 48	5 51	5 53	5 56	5 59	6 01	6 03	6 04	6 06	6 07	6 08	6 10	6 11	6 13	6 14	6 16
18 55	17	5 49	5 52	5 55	5 58	6 00	6 03	6 05	6 06	6 08	6 09	6 11	6 12	6 14	6 15	6 17	6 19
20 05	22	5 50	5 53	5 56	6 00	6 02	6 05	6 06	6 08	6 09	6 11	6 12	6 14	6 16	6 17	6 19	6 21
21 05 S	27	5 52	5 55	5 58	6 02	6 05	6 07	6 08	6 10	6 12	6 13	6 15	6 17	6 19	6 20	6 22	6 24
21 55 S	Dec. 2	5 53	5 57	6 00	6 04	6 07	6 10	6 12	6 14	6 16	6 17	6 19	6 21	6 23	6 24	6 26	6 28
22 35	7	5 55	5 59	6 02	6 06	6 10	6 12	6 13	6 15	6 17	6 19	6 21	6 23	6 25	6 27	6 28	6 30
23 04	12	5 58	6 02	6 05	6 09	6 12	6 15	6 14	6 18	6 20	6 22	6 24	6 26	6 27	6 29	6 31	6 33
23 21	17	6 00	6 04	6 08	6 11	6 15	6 18	6 20	6 22	6 24	6 26	6 27	6 29	6 31	6 33	6 35	6 37
23 27	22	6 03	6 07	6 10	6 14	6 17	6 20	6 22	6 23	6 25	6 27	6 29	6 31	6 33	6 35	6 37	6 39
23 21 S	27	6 05	6 09	6 13	6 16	6 20	6 23	6 25	6 27	6 29	6 30	6 32	6 34	6 36	6 38	6 40	6 42
23 08 S	Jan. 1	6 08	6 12	6 15	6 18	6 22	6 25	6 27	6 29	6 31	6 32	6 34	6 36	6 38	6 40	6 42	6 44

Declination.	Approx. date.	South Latitude.															
		21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	36°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	5 21	5 19	5 17	5 15	5 13	5 11	5 08	5 06	5 04	5 01	4 59	4 57	4 54	4 51	4 49	4 46
22 37	6	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 10	5 07	5 05	5 03	5 01	4 58	4 56	4 53	4 50
21 58	11	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 11	5 09	5 07	5 05	5 02	5 00	4 57	4 55
21 08	16	5 31	5 29	5 27	5 26	5 24	5 22	5 20	5 18	5 16	5 13	5 11	5 09	5 07	5 05	5 02	5 00
20 07	21	5 35	5 33	5 31	5 29	5 27	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 05
18 58	26	5 38	5 36	5 35	5 33	5 31	5 30	5 28	5 26	5 24	5 22	5 20	5 19	5 16	5 14	5 12	5 10
17 39 S	31	5 41	5 40	5 38	5 37	5 35	5 33	5 32	5 30	5 29	5 27	5 25	5 23	5 21	5 19	5 17	5 15
16 13 S	Feb. 5	5 44	5 43	5 41	5 40	5 39	5 37	5 36	5 34	5 33	5 36	5 30	5 28	5 26	5 24	5 22	5 20
14 40	10	5 47	5 46	5 45	5 43	5 42	5 41	5 39	5 38	5 37	5 35	5 34	5 33	5 31	5 29	5 28	5 26
13 01	15	5 50	5 49	5 48	5 46	5 45	5 44	5 43	5 42	5 41	5 39	5 38	5 37	5 35	5 34	5 33	5 31
11 16	20	5 52	5 51	5 50	5 49	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 41	5 40	5 39	5 37	5 36
9 28 S	25	5 54	5 54	5 53	5 52	5 51	5 50	5 50	5 49	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 41
7 30 S	Mar. 2	5 56	5 56	5 55	5 55	5 54	5 53	5 53	5 52	5 51	5 51	5 50	5 49	5 48	5 48	5 47	5 46
5 34	7	5 58	5 58	5 57	5 57	5 56	5 56	5 55	5 55	5 54	5 54	5 53	5 53	5 52	5 52	5 51	5 51
3 37	12	6 00	6 00	5 59	5 59	5 59	5 59	5 58	5 58	5 58	5 57	5 57	5 57	5 56	5 56	5 55	5 55
1 39 S	17	6 02	6 02	6 01	6 01	6 01	6 01	6 01	6 01	6 01	6 00	6 00	6 00	6 00	6 00	6 00	5 59
0 20 N	22	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 04	6 04
2 18 N	27	6 05	6 05	6 05	6 05	6 05	6 06	6 06	6 06	6 06	6 06	6 07	6 07	6 07	6 07	6 08	6 08
4 15 N	Apr. 1	6 06	6 07	6 07	6 07	6 08	6 08	6 08	6 09	6 09	6 09	6 10	6 10	6 11	6 11	6 12	6 12
6 09	6	6 08	6 08	6 09	6 09	6 10	6 10	6 11	6 11	6 12	6 12	6 13	6 13	6 14	6 15	6 15	6 16
8 02	11	6 09	6 10	6 10	6 11	6 12	6 13	6 13	6 14	6 15	6 15	6 16	6 17	6 18	6 19	6 19	6 20
9 51	16	6 11	6 12	6 12	6 13	6 14	6 15	6 16	6 17	6 17	6 18	6 19	6 20	6 21	6 22	6 23	6 24
11 35	21	6 12	6 13	6 14	6 15	6 16	6 17	6 18	6 19	6 20	6 21	6 23	6 24	6 25	6 26	6 27	6 28
13 15 N	26	6 14	6 15	6 16	6 17	6 19	6 20	6 21	6 22	6 23	6 25	6 26	6 27	6 28	6 30	6 31	6 33
14 50 N	May 1	6 17	6 18	6 19	6 21	6 22	6 23	6 25	6 26	6 27	6 28	6 29	6 31	6 32	6 34	6 35	6 37
16 19	6	6 19	6 20	6 22	6 23	6 24	6 26	6 27	6 29	6 30	6 31	6 33	6 34	6 36	6 37	6 39	6 41
17 42	11	6 21	6 22	6 24	6 25	6 27	6 28	6 30	6 32	6 33	6 34	6 36	6 37	6 39	6 41	6 43	6 45
18 55	16	6 23	6 24	6 26	6 28	6 29	6 31	6 33	6 34	6 36	6 37	6 39	6 41	6 43	6 45	6 47	6 49
19 58	21	6 25	6 26	6 28	6 30	6 32	6 34	6 35	6 37	6 39	6 40	6 42	6 44	6 46	6 48	6 50	6 53
21 00	26	6 27	6 29	6 30	6 32	6 34	6 36	6 38	6 40	6 42	6 43	6 44	6 47	6 49	6 52	6 54	6 56
21 48 N	31	6 29	6 31	6 32	6 34	6 36	6 38	6 40	6 42	6 45	6 46	6 48	6 50	6 52	6 55	6 57	6 59
22 28 N	June 5	6 31	6 33	6 34	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 52	6 54	6 56	6 59	7 01	7 03
22 57	10	6 33	6 35	6 36	6 38	6 41	6 43	6 45	6 47	6 49	6 52	6 54	6 56	6 59	7 01	7 04	7 06
23 17	15	6 33	6 35	6 37	6 39	6 41	6 44	6 46	6 48	6 50	6 52	6 55	6 57	6 59	7 02	7 05	7 07
23 26	20	6 35	6 38	6 40	6 42	6 44	6 46	6 48	6 50	6 52	6 55	6 57	6 59	7 02	7 04	7 07	7 10
23 25	25	6 36	6 39	6 40	6 42	6 45	6 47	6 49	6 51	6 53	6 56	6 58	7 00	7 03	7 06	7 08	7 11
23 14 N	30	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 54	6 56	6 58	7 01	7 03	7 06	7 08	7 11
22 52 N	July 5	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 54	6 56	6 58	7 00	7 03	7 05	7 08	7 10
22 21	10	6 37	6 39	6 41	6 43	6 45	6 47	6 49	6 51	6 53	6 55	6 57	6 59	7 02	7 04	7 07	7 09
21 40	15	6 36	6 38	6 40	6 42	6 44	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 00	7 03	7 05	7 07
20 50	20	6 35	6 37	6 39	6 40	6 42	6 44	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 00	7 02	7 05
19 50	25	6 34	6 35	6 37	6 38	6 40	6 42	6 44	6 46	6 48	6 49	6 51	6 53	6 55	6 57	6 59	7 02
18 43 N	30	6 32	6 33	6 35	6 36	6 38	6 39	6 41	6 43	6 44	6 46	6 48	6 50	6 52	6 54	6 56	6 58
17 28 N	Aug. 4	6 31	6 32	6 33	6 34	6 36	6 37	6 39	6 40	6 42	6 44	6 45	6 47	6 49	6 50	6 52	6 54
16 06	9	6 26	6 28	6 29	6 30	6 32	6 33	6 34	6 35	6 37	6 40	6 41	6 43	6 44	6 46	6 47	6 49
14 37	14	6 23	6 24	6 25	6 26	6 28	6 29	6 30	6 31	6 33	6 35	6 36	6 38	6 39	6 41	6 42	6 43
13 03	19	6 19	6 20	6 21	6 22	6 24	6 25	6 26	6 27	6 28	6 30	6 31	6 32	6 34	6 35	6 36	6 37
11 23	24	6 16	6 17	6 18	6 19	6 20	6 21	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 29	6 30	6 31
9 39 N	29	6 12	6 13	6 14	6 14	6 15	6 16	6 17	6 17	6 18	6 19	6 20	6 21	6 22	6 23	6 24	6 25
7 51 N	Sept. 3	6 07	6 07	6 08	6 08	6 09	6 10	6 10	6 11	6 12	6 13	6 14	6 15	6 15	6 16	6 17	6 17
6 00	8	6 02	6 03	6 03	6 04	6 04	6 04	6 05	6 05	6 06	6 07	6 08	6 08	6 09	6 09	6 10	6 11
4 07	13	5 58	5 58	5 58	5 58	5 59	5 59	5 59	6 00	6 00	6 01	6 01	6 02	6 02	6 02	6 03	6 03
2 11	18	5 53	5 53	5 53	5 54	5 53	5 53	5 54	5 54	5 54	5 55	5 55	5 55	5 55	5 55	5 55	5 56
0 15 N	23	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 49	5 48	5 48	5 48
1 42 S	28	5 44	5 44	5 44	5 44	5 44	5 43	5 43	5 43	5 43	5 42	5 42	5 42	5 42	5 41	5 41	5 41
3 39 S	Oct. 3	5 40	5 39	5 39	5 39	5 38	5 38	5 38	5 37	5 37	5 36	5 36	5 35	5 35	5 35	5 34	5 34
5 35	8	5 35	5 35	5 34	5 34	5 33	5 33	5 32	5 31	5 31	5 30	5 30	5 29	5 28	5 28	5 27	5 26
7 28	13	5 31	5 30	5 30	5 29	5 28	5 28	5 27	5 26	5 25	5 25	5 24	5 23	5 22	5 21	5 20	5 20
9 20	18	5 27	5 26	5 25	5 25	5 24	5 23	5 22	5 21	5 20	5 20	5 18	5 17	5 16	5 15	5 14	5 13
11 08	23	5 23	5 23	5 22	5 21	5 19	5 18	5 17	5 16	5 15	5 14	5 13	5 12	5 11	5 09	5 08	5 07
12 51 S	28	5 20	5 19	5 18	5 17	5 16	5 14	5 13	5 12	5 11	5 09	5 08	5 07	5 05	5 04	5 02	5 01
14 30 S	Nov. 2	5 16	5 15	5 14	5 12	5 11	5 10	5 08	5 07	5 05	5 05	5 03	5 02	5 00	4 59	4 57	4 55
16 03	7	5 14	5 12	5 11	5 10	5 08	5 06	5 05	5 04	5 02	5 01	5 00	4 58	4 56	4 54	4 53	4 51
17 29	12	5 12	5 10	5 09	5 07	5 06	5 04	5 02	5 01	4 59	4 58	4 56	4 54	4 52	4 50	4 48	4 47
18 48	17	5 10	5 09	5 07	5 05	5 04	5 02	5 00	4 58	4 56	4 55	4 53	4 51	4 49	4 47	4 45	4 43
19 58	22	5 09	5 08	5 06	5 04	5 02	5 00	4 58	4 57	4 54	4 53	4 51	4 49	4 47	4 45	4 43	4 40
20 59 S	27	5 09	5 08	5 06	5 04	5 02	5 00	4 58	4 56	4 54	4 52	4 50	4 48	4 46	4 43	4 41	4 38
21 51 S	Dec. 2	5 09	5 08	5 06	5 04	5 02	5 00	4 58	4 56	4 53	4 51	4 49	4 46	4 44	4 41	4 39	4 36
22 32	7	5 10	5 08	5 06	5 04	5 02	5 00	4 58	4 56	4 54	4 51	4 49	4 46	4 44	4 41	4 39	4 36
23 02	12	5 12	5 10	5 08	5 06	5 04	5 01	4 59	4 57	4 54	4 52	4 50	4 47	4 45	4 42	4 39	4 37
23 20	17	5 13	5 11	5 09	5 07	5 04	5 02	5 00	4 58	4 55	4 53	4 50	4 48	4 45	4 42	4 40	4 37
23 27	22	5 16	5 14	5 12	5 10	5 08	5 05	5 03	5 01	4 58	4 55	4 53	4 50	4 47	4 45	4 42	4 39
23 22 S	27	5 18	5 16	5 14	5 12	5 09	5 07	5 05	5 03	5 00	4 58	4 55	4 53	4 50	4 48	4 45	4 42
23 05 S	Jan. 1	5 21	5 19	5 17	5 15	5 13	5 11	5 08	5 06	5 04	5 01	4 59	4 57	4 54	4 51	4 49	4 46

Declination.	Approx. date.	South Latitude.															
		21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	36°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 01	7 03	7 06	7 08	7 10	7 13	7 16	7 18	7 21
22 34	6	6 47	6 49	6 51	6 53	6 55	6 57	7 00	7 02	7 04	7 06	7 09	7 11	7 14	7 16	7 19	7 21
21 58	11	6 48	6 50	6 52	6 54	6 56	6 58	7 00	7 02	7 04	7 06	7 09	7 11	7 14	7 16	7 18	7 21
21 02	16	6 48	6 50	6 52	6 53	6 55	6 57	6 59	7 01	7 03	7 06	7 08	7 10	7 12	7 15	7 17	7 19
20 01	21	6 48	6 49	6 51	6 53	6 55	6 56	6 58	7 00	7 02	7 04	7 06	7 08	7 10	7 13	7 15	7 17
18 50	26	6 47	6 48	6 50	6 51	6 53	6 55	6 57	6 58	7 00	7 02	7 04	7 06	7 08	7 10	7 12	7 14
17 31 S	31	6 45	6 47	6 48	6 49	6 51	6 53	6 54	6 56	6 58	6 59	7 01	7 03	7 05	7 07	7 09	7 10
16 04 S	Feb. 5	6 43	6 44	6 46	6 47	6 49	6 50	6 52	6 53	6 55	6 56	6 58	6 59	7 01	7 03	7 04	7 06
14 30	10	6 42	6 43	6 44	6 45	6 47	6 48	6 49	6 51	6 52	6 53	6 55	6 56	6 58	6 59	7 01	7 02
12 51	15	6 39	6 40	6 41	6 42	6 43	6 44	6 45	6 46	6 48	6 49	6 50	6 51	6 53	6 54	6 55	6 57
11 06	20	6 35	6 36	6 37	6 38	6 39	6 40	6 41	6 42	6 43	6 44	6 45	6 46	6 47	6 48	6 50	6 51
9 16 S	25	6 32	6 32	6 33	6 34	6 35	6 35	6 36	6 37	6 38	6 39	6 40	6 41	6 42	6 43	6 43	6 44
7 18 S	Mar. 2	6 28	6 28	6 29	6 29	6 30	6 31	6 31	6 32	6 33	6 33	6 34	6 35	6 36	6 36	6 37	6 38
5 23	7	6 23	6 24	6 24	6 25	6 25	6 26	6 26	6 27	6 27	6 28	6 28	6 29	6 29	6 30	6 30	6 31
3 25	12	6 19	6 19	6 20	6 20	6 20	6 21	6 21	6 21	6 21	6 22	6 22	6 23	6 23	6 23	6 24	6 24
1 27 S	17	6 15	6 15	6 15	6 15	6 15	6 15	6 15	6 16	6 16	6 16	6 16	6 16	6 16	6 16	6 17	6 17
0 32 N	22	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 09
2 30 N	27	6 06	6 05	6 05	6 05	6 05	6 05	6 04	6 04	6 04	6 04	6 03	6 03	6 03	6 03	6 02	6 02
4 26 N	Apr. 1	6 01	6 01	6 00	6 00	6 00	5 59	5 59	5 59	5 58	5 58	5 57	5 57	5 56	5 56	5 55	5 55
6 21	6	5 57	5 56	5 56	5 55	5 55	5 54	5 54	5 53	5 52	5 52	5 51	5 51	5 50	5 49	5 49	5 48
8 13	11	5 52	5 52	5 51	5 51	5 50	5 49	5 48	5 47	5 47	5 46	5 45	5 45	5 44	5 43	5 42	5 41
10 01	16	5 48	5 48	5 47	5 46	5 45	5 44	5 43	5 42	5 41	5 41	5 40	5 39	5 38	5 37	5 36	5 35
11 46	21	5 45	5 44	5 43	5 42	5 41	5 40	5 39	5 37	5 36	5 35	5 34	5 33	5 32	5 31	5 29	5 28
13 25 N	26	5 41	5 40	5 39	5 38	5 36	5 35	5 34	5 33	5 32	5 30	5 29	5 28	5 27	5 25	5 24	5 22
14 59 N	May 1	5 38	5 36	5 35	5 34	5 33	5 31	5 30	5 29	5 27	5 26	5 24	5 23	5 20	5 20	5 18	5 17
16 27	6	5 35	5 33	5 32	5 31	5 29	5 28	5 26	5 25	5 23	5 22	5 20	5 19	5 16	5 15	5 13	5 12
17 48	11	5 33	5 31	5 29	5 28	5 26	5 25	5 23	5 22	5 20	5 18	5 16	5 15	5 13	5 11	5 09	5 07
19 02	16	5 30	5 29	5 27	5 26	5 24	5 22	5 20	5 19	5 17	5 15	5 13	5 11	5 09	5 07	5 05	5 03
20 04	21	5 29	5 27	5 25	5 24	5 22	5 20	5 18	5 16	5 14	5 13	5 11	5 09	5 06	5 04	5 02	5 00
21 05	26	5 28	5 26	5 24	5 22	5 20	5 19	5 17	5 14	5 12	5 11	5 08	5 06	5 04	5 02	4 59	4 57
21 53 N	31	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 10	5 08	5 06	5 04	5 01	4 59	4 57	4 54
22 31 N	June 5	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 05	5 03	5 00	4 58	4 55	4 53
23 00	10	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 05	5 02	5 00	4 57	4 55	4 52
23 18	15	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 10	5 07	5 05	5 02	5 00	4 57	4 55	4 52
23 26	20	5 27	5 25	5 23	5 21	5 19	5 17	5 15	5 13	5 10	5 08	5 06	5 03	5 01	4 58	4 56	4 53
23 24	25	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 05	5 02	4 59	4 57	4 54
23 12 N	30	5 30	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 13	5 11	5 09	5 06	5 04	5 01	4 59	4 56
22 50 N	July 5	5 31	5 29	5 27	5 25	5 23	5 21	5 19	5 17	5 14	5 12	5 10	5 07	5 05	5 03	5 00	4 58
22 17	10	5 33	5 32	5 30	5 28	5 26	5 24	5 22	5 20	5 18	5 15	5 13	5 11	5 09	5 06	5 04	5 02
21 35	15	5 35	5 34	5 32	5 30	5 28	5 26	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 04
20 44	20	5 37	5 36	5 34	5 32	5 30	5 28	5 26	5 25	5 23	5 21	5 19	5 17	5 14	5 12	5 10	5 08
19 44	25	5 39	5 38	5 36	5 34	5 33	5 31	5 29	5 27	5 25	5 24	5 22	5 20	5 18	5 16	5 14	5 12
18 36 N	30	5 41	5 40	5 38	5 36	5 35	5 33	5 32	5 30	5 28	5 26	5 25	5 23	5 21	5 19	5 17	5 15
17 20 N	Aug. 4	5 43	5 41	5 40	5 39	5 37	5 36	5 34	5 33	5 31	5 29	5 28	5 26	5 24	5 23	5 21	5 19
15 57	9	5 44	5 43	5 42	5 41	5 39	5 38	5 37	5 35	5 34	5 32	5 31	5 29	5 28	5 26	5 24	5 23
14 28	14	5 46	5 45	5 44	5 43	5 42	5 40	5 39	5 38	5 37	5 35	5 34	5 33	5 31	5 30	5 28	5 27
12 53	19	5 48	5 47	5 46	5 45	5 44	5 42	5 41	5 40	5 39	5 38	5 37	5 36	5 35	5 33	5 32	5 31
11 13	24	5 49	5 48	5 47	5 46	5 46	5 45	5 44	5 43	5 42	5 41	5 40	5 39	5 38	5 37	5 36	5 35
9 29 N	29	5 50	5 50	5 49	5 48	5 48	5 47	5 46	5 45	5 44	5 44	5 43	5 42	5 41	5 40	5 39	5 38
7 40 N	Sept. 3	5 52	5 51	5 51	5 50	5 50	5 49	5 48	5 48	5 47	5 46	5 46	5 45	5 44	5 44	5 43	5 42
5 49	8	5 53	5 53	5 52	5 52	5 51	5 51	5 50	5 50	5 50	5 49	5 49	5 48	5 48	5 47	5 47	5 46
3 55	13	5 54	5 54	5 54	5 53	5 53	5 53	5 52	5 52	5 52	5 52	5 51	5 51	5 51	5 51	5 50	5 50
2 00	18	5 54	5 54	5 54	5 54	5 54	5 54	5 54	5 54	5 54	5 53	5 53	5 53	5 53	5 53	5 53	5 53
0 03 N	23	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 58	5 58
1 54 S	28	5 58	5 58	5 58	5 58	5 59	5 59	5 59	6 00	6 00	6 00	6 00	6 00	6 01	6 01	6 01	6 02
3 51 S	Oct. 3	5 59	6 00	6 00	6 00	6 01	6 01	6 02	6 02	6 02	6 03	6 03	6 04	6 04	6 05	6 05	6 06
5 46	8	6 01	6 01	6 02	6 02	6 03	6 04	6 04	6 05	6 05	6 06	6 07	6 07	6 08	6 09	6 09	6 10
7 40	13	6 02	6 03	6 04	6 05	6 05	6 06	6 07	6 08	6 08	6 09	6 10	6 11	6 12	6 12	6 13	6 14
9 31	18	6 04	6 05	6 06	6 07	6 08	6 09	6 10	6 11	6 12	6 13	6 14	6 14	6 16	6 17	6 18	6 19
11 18	23	6 07	6 08	6 08	6 09	6 10	6 12	6 13	6 14	6 15	6 16	6 17	6 18	6 20	6 21	6 22	6 24
13 02 S	28	6 09	6 10	6 11	6 12	6 13	6 15	6 16	6 17	6 18	6 20	6 21	6 22	6 24	6 25	6 27	6 28
14 40 S	Nov. 2	6 11	6 13	6 14	6 15	6 17	6 18	6 19	6 21	6 22	6 23	6 24	6 26	6 27	6 29	6 31	6 33
16 12	7	6 14	6 16	6 17	6 18	6 20	6 21	6 23	6 24	6 26	6 27	6 28	6 30	6 32	6 34	6 36	6 37
17 38	12	6 17	6 19	6 20	6 22	6 23	6 25	6 27	6 28	6 30	6 31	6 33	6 35	6 37	6 39	6 41	6 43
18 55	17	6 20	6 22	6 23	6 25	6 27	6 29	6 30	6 32	6 34	6 35	6 37	6 39	6 41	6 43	6 46	6 48
20 05	22	6 22	6 24	6 26	6 28	6 30	6 32	6 33	6 35	6 37	5 40	6 42	6 44	6 46	6 48	6 51	6 53
21 05 S	27	6 25	6 28	6 29	6 31	6 33	6 35	6 37	6 39	6 41	6 44	6 46	6 48	6 51	6 53	6 55	6 58
21 55 S	Dec. 2	6 30	6 32	6 34	6 36	6 38	6 38	6 42	6 44	6 47	6 49	6 51	6 54	6 56	6 58	7 00	7 03
22 35	7	6 32	6 34	6 36	6 38	6 41	6 43	6 45	6 47	6 49	6 52	6 54	6 56	6 59	7 02	7 04	7 07
23 04	12	6 35	6 37	6 39	6 41	6 44	6 46	6 48	6 50	6 53	6 55	6 58	7 00	7 03	7 05	7 08	7 11
23 21	17	6 39	6 41	6 43	6 45	6 48	6 50	6 52	6 54	6 57	6 59	7 02	7 04	7 07	7 10	7 12	7 15
23 27	22	6 42	6 44	6 46	6 48	6 50	6 53	6 55	6 57	7 00	7 02	7 04	7 07	7 10	7 12	7 15	7 18
23 21 S	27	6 44	6 46	6 48	6 50	6 52	6 55	6 57	6 59	7 02	7 04	7 07	7 09	7 12	7 14	7 17	7 20
23 03 S	Jan. 1	6 46	6 48	6 50	6 52	6 54	6 56	6 58	7 01	7 03	7 06	7 08	7 10	7 13	7 16	7 18	7 21

Declination.	Approx. date.	South Latitude.															
		37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	48°	49°	50°	51°	52°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	4 43	4 40	4 37	4 34	4 31	4 27	4 24	4 20	4 16	4 12	4 08	4 03	3 59	3 54	3 49	3 44
22 37	6	4 46	4 43	4 40	4 38	4 34	4 31	4 28	4 23	4 20	4 16	4 12	4 08	4 04	3 59	3 54	3 49
21 58	11	4 52	4 49	4 46	4 43	4 40	4 37	4 34	4 30	4 27	4 23	4 18	4 14	4 10	4 05	4 00	3 56
21 08	16	4 56	4 53	4 51	4 48	4 45	4 42	4 39	4 36	4 32	4 29	4 25	4 21	4 17	4 13	4 08	4 04
20 07	21	5 01	4 59	4 56	4 54	4 51	4 48	4 45	4 42	4 39	4 36	4 32	4 29	4 25	4 21	4 17	4 12
18 58	26	5 07	5 04	5 02	5 00	4 57	4 54	4 52	4 49	4 46	4 43	4 40	4 36	4 33	4 29	4 24	4 21
17 39 S	31	5 12	5 10	5 08	5 06	5 04	5 01	4 59	4 56	4 53	4 51	4 48	4 45	4 42	4 38	4 33	4 30
16 13 S	Feb. 5	5 18	5 16	5 14	5 12	5 10	5 08	5 06	5 03	5 01	4 58	4 56	4 53	4 50	4 47	4 43	4 40
14 40	10	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 10	5 08	5 06	5 04	5 01	4 59	4 56	4 52	4 49
13 01	15	5 29	5 27	5 26	5 24	5 23	5 21	5 19	5 17	5 15	5 13	5 11	5 09	5 07	5 04	5 01	4 59
11 16	20	5 34	5 33	5 31	5 30	5 29	5 27	5 26	5 24	5 22	5 21	5 19	5 17	5 15	5 13	5 10	5 08
9 28 S	25	5 39	5 38	5 37	5 36	5 35	5 33	5 32	5 31	5 30	5 28	5 27	5 25	5 24	5 22	5 19	5 17
7 30 S	Mar. 2	5 45	5 44	5 43	5 42	5 41	5 40	5 39	5 38	5 36	5 35	5 34	5 33	5 32	5 30	5 29	5 28
5 34	7	5 50	5 49	5 49	5 48	5 46	5 46	5 45	5 44	5 43	5 42	5 41	5 41	5 40	5 39	5 38	5 37
3 37	12	5 55	5 54	5 54	5 53	5 52	5 52	5 51	5 50	5 50	5 49	5 49	5 48	5 48	5 47	5 46	5 46
1 39 S	17	5 58	5 58	5 58	5 58	5 57	5 57	5 57	5 57	5 56	5 56	5 56	5 56	5 55	5 55	5 55	5 54
0 20 N	22	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03	6 03
2 18 N	27	6 07	6 07	6 08	6 08	6 08	6 07	6 09	6 09	6 09	6 09	6 10	6 10	6 10	6 11	6 11	6 11
4 15 N	Apr. 1	6 12	6 12	6 12	6 13	6 13	6 14	6 14	6 15	6 16	6 16	6 17	6 17	6 18	6 19	6 19	6 20
6 09	6	6 16	6 16	6 17	6 18	6 18	6 19	6 20	6 21	6 22	6 22	6 23	6 24	6 25	6 26	6 27	6 28
8 02	11	6 20	6 21	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 29	6 30	6 31	6 33	6 34	6 35	6 37
9 51	16	6 24	6 25	6 27	6 28	6 29	6 30	6 31	6 33	6 34	6 35	6 37	6 38	6 40	6 42	6 43	6 45
11 35	21	6 29	6 30	6 31	6 33	6 34	6 36	6 37	6 39	6 40	6 42	6 44	6 45	6 47	6 49	6 51	6 53
13 15 N	26	6 33	6 35	6 36	6 38	6 39	6 41	6 43	6 44	6 46	6 48	6 50	6 52	6 54	6 57	6 59	7 02
14 50 N	May 1	6 38	6 40	6 42	6 43	6 45	6 47	6 49	6 51	6 53	6 56	6 58	7 00	7 03	7 04	7 07	7 10
16 19	6	6 43	6 45	6 46	6 48	6 50	6 53	6 55	6 57	6 59	7 02	7 04	7 07	7 10	7 12	7 15	7 18
17 42	11	6 47	6 49	6 51	6 53	6 55	6 58	7 00	7 03	7 05	7 08	7 11	7 14	7 17	7 19	7 22	7 25
18 55	16	6 51	6 53	6 55	6 58	7 00	7 03	7 05	7 08	7 11	7 14	7 17	7 20	7 23	7 26	7 29	7 33
19 58	21	6 55	6 57	7 00	7 02	7 05	7 08	7 10	7 13	7 16	7 19	7 23	7 26	7 29	7 32	7 36	7 40
21 00	26	6 59	7 01	7 04	7 06	7 09	7 12	7 15	7 18	7 21	7 24	7 28	7 31	7 35	7 38	7 42	7 46
21 48 N	31	6 02	7 05	7 07	7 10	7 13	7 16	7 19	7 22	7 26	7 29	7 33	7 37	7 40	7 44	7 48	7 52
22 28 N	June 5	7 06	7 09	7 12	7 14	7 17	7 21	7 24	7 27	7 31	7 34	7 38	7 42	7 46	7 50	7 54	7 59
22 57	10	7 09	7 12	7 15	7 17	7 20	7 24	7 27	7 30	7 34	7 38	7 42	7 46	7 50	7 54	7 58	8 03
23 17	15	7 10	7 13	7 16	7 19	7 22	7 25	7 28	7 32	7 35	7 39	7 43	7 47	7 51	7 56	8 01	8 06
23 26	20	7 12	7 15	7 18	7 21	7 24	7 27	7 31	7 34	7 38	7 42	7 46	7 50	7 54	7 59	8 04	8 09
23 25	25	7 13	7 16	7 19	7 22	7 25	7 28	7 32	7 35	7 39	7 43	7 47	7 51	7 55	8 00	8 04	8 09
23 14 N	30	7 14	7 16	7 19	7 22	7 25	7 28	7 32	7 35	7 39	7 42	7 46	7 50	7 54	7 59	8 04	8 09
22 52 N	July 5	7 13	7 16	7 19	7 21	7 24	7 27	7 31	7 34	7 38	7 41	7 45	7 49	7 53	7 58	8 02	8 07
22 21	10	7 12	7 14	7 17	7 20	7 23	7 26	7 29	7 32	7 36	7 39	7 43	7 47	7 50	7 55	7 59	8 04
21 40	15	7 10	7 12	7 15	7 18	7 20	7 23	7 26	7 30	7 33	7 36	7 40	7 43	7 47	7 51	7 55	8 00
20 50	20	7 08	7 11	7 13	7 15	7 18	7 21	7 24	7 27	7 30	7 33	7 36	7 40	7 43	7 47	7 51	7 55
19 50	25	7 04	7 06	7 08	7 11	7 13	7 16	7 18	7 21	7 24	7 27	7 30	7 34	7 37	7 42	7 45	7 49
18 43 N	30	7 01	7 03	7 05	7 07	7 09	7 12	7 14	7 17	7 20	7 22	7 25	7 28	7 31	7 35	7 38	7 42
17 28 N	Aug. 4	6 56	6 58	7 00	7 02	7 04	7 06	7 09	7 11	7 13	7 16	7 19	7 22	7 25	7 28	7 31	7 35
16 06	9	6 51	6 53	6 54	6 56	6 58	7 00	7 02	7 04	7 07	7 09	7 11	7 14	7 16	7 19	7 22	7 25
14 37	14	6 45	6 47	6 48	6 50	6 52	6 53	6 55	6 57	6 59	7 01	7 03	7 05	7 08	7 10	7 13	7 15
13 03	19	6 39	6 40	6 42	6 43	6 45	6 46	6 48	6 49	6 51	6 53	6 55	6 57	6 59	7 02	7 04	7 06
11 23	24	6 32	6 33	6 35	6 36	6 37	6 39	6 40	6 41	6 43	6 44	6 46	6 48	6 49	6 52	6 54	6 56
9 39 N	29	6 26	6 27	6 28	6 29	6 30	6 32	6 33	6 34	6 35	6 36	6 38	6 39	6 40	6 42	6 44	6 45
7 51 N	Sept. 3	6 18	6 19	6 20	6 21	6 21	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 29	6 31	6 32	6 34
6 00	8	6 11	6 12	6 12	6 13	6 13	6 14	6 15	6 15	6 16	6 17	6 17	6 18	6 19	6 21	6 22	6 22
4 07	13	6 08	6 04	6 04	6 05	6 05	6 05	6 06	6 06	6 07	6 07	6 07	6 08	6 08	6 10	6 10	6 11
2 11	18	5 56	5 56	5 56	5 57	5 57	5 57	5 58	5 58	5 58	5 58	5 58	5 58	5 59	5 59	5 59	5 59
0 15 N	23	5 48	5 48	5 48	5 49	5 49	5 49	5 49	5 48	5 48	5 48	5 48	5 48	5 48	5 48	5 48	5 47
1 42 S	28	5 41	5 40	5 40	5 40	5 39	5 39	5 39	5 38	5 38	5 37	5 37	5 37	5 36	5 37	5 36	5 36
3 39 S	Oct. 3	5 33	5 33	5 32	5 32	5 31	5 30	5 30	5 29	5 28	5 28	5 27	5 26	5 26	5 26	5 25	5 24
5 35	8	5 26	5 25	5 24	5 24	5 23	5 22	5 21	5 20	5 19	5 18	5 17	5 10	5 15	5 15	5 14	5 13
7 28	13	5 19	5 18	5 17	5 16	5 15	5 14	5 13	5 11	5 10	5 09	5 08	5 06	5 05	5 04	5 03	5 01
9 20	18	5 12	5 11	5 09	5 09	5 08	5 06	5 05	5 04	5 02	5 01	4 59	4 58	4 56	4 54	4 52	4 50
11 08	23	5 05	5 04	5 02	5 01	4 59	4 58	4 56	4 55	4 53	4 51	4 49	4 47	4 45	4 44	4 42	4 40
12 51 S	28	4 59	4 58	4 56	4 55	4 53	4 51	4 49	4 47	4 45	4 43	4 41	4 39	4 36	4 35	4 32	4 30
14 30 S	Nov. 2	4 54	4 52	4 50	4 48	4 46	4 44	4 42	4 40	4 38	4 35	4 33	4 30	4 28	4 25	4 22	4 19
16 03	7	4 49	4 47	4 45	4 43	4 40	4 38	4 36	4 32	4 31	4 28	4 25	4 22	4 19	4 16	4 13	4 10
17 29	12	4 44	4 42	4 40	4 38	4 35	4 33	4 30	4 27	4 25	4 22	4 19	4 15	4 12	4 09	4 05	4 01
18 48	17	4 41	4 38	4 36	4 33	4 31	4 28	4 25	4 22	4 19	4 17	4 13	4 09	4 06	4 02	3 58	3 54
19 58	22	4 38	4 35	4 33	4 30	4 27	4 24	4 21	4 18	4 15	4 12	4 08	4 04	4 00	3 56	3 52	3 48
20 59 S	27	4 36	4 33	4 30	4 27	4 24	4 21	4 18	4 15	4 11	4 08	4 04	4 00	3 56	3 52	3 47	3 43
21 51 S	Dec. 2	4 33	4 31	4 28	4 25	4 22	4 18	4 15	4 12	4 08	4 04	4 00	3 57	3 53	3 48	3 43	3 39
22 32	7	4 33	4 30	4 27	4 24	4 21	4 18	4 14	4 10	4 07	4 03	3 59	3 55	3 51	3 46	3 41	3 36
23 02	12	4 34	4 31	4 28	4 24	4 21	4 18	4 14	4 10	4 06	4 03	3 58	3 54	3 49	3 44	3 39	3 34
23 20	17	4 34	4 31	4 28	4 25	4 21	4 18	4 14	4 11	4 07	4 04	3 58	3 54	3 49	3 44	3 39	3 34
23 27	22	4 36	4 33	4 30	4 27	4 23	4 20	4 17	4 13	4 09	4 05	4 00	3 56	3 51	3 47	3 41	3 36
23 22 S	27	4 39	4 36	4 33	4 30	4 27	4 23	4 20	4 16	4 12	4 08	4 03	3 59	3 55	3 50	3 44	3 39
23 05 S	Jan. 1	4 43	4 40	4 37	4 34	4 31	4 27	4 24	4 20	4 16	4 12	4 08	4 03	3 59	3 54	3 49	3 44

Declination.	Approx. date.	South Latitude.															
		37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	48°	49°	50°	51°	52°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	7 24	7 27	7 30	7 33	7 36	7 40	7 43	7 47	7 51	7 55	7 59	8 03	8 08	8 13	8 18	8 23
22 34	6	7 24	7 27	7 30	7 33	7 36	7 39	7 43	7 46	7 50	7 54	7 58	8 02	8 07	8 12	8 16	8 22
21 53	11	7 24	7 27	7 29	7 32	7 35	7 38	7 42	7 45	7 49	7 52	7 56	8 00	8 04	8 09	8 14	8 19
21 02	16	7 22	7 25	7 27	7 30	7 33	7 36	7 39	7 42	7 46	7 49	7 53	7 57	8 00	8 05	8 11	8 16
20 01	21	7 21	7 23	7 25	7 28	7 31	7 34	7 37	7 40	7 43	7 46	7 49	7 53	7 57	8 02	8 06	8 09
18 50	26	7 17	7 20	7 22	7 24	7 27	7 30	7 32	7 35	7 38	7 41	7 44	7 48	7 51	7 56	8 00	8 03
17 31 S	31	7 14	7 16	7 18	7 20	7 22	7 25	7 27	7 30	7 32	7 35	7 38	7 42	7 45	7 49	7 52	7 56
16 04 S	Feb. 5	7 09	7 11	7 13	7 15	7 17	7 19	7 21	7 24	7 26	7 29	7 32	7 35	7 38	7 41	7 44	7 47
14 30	10	7 05	7 07	7 09	7 10	7 12	7 14	7 16	7 18	7 20	7 22	7 25	7 27	7 30	7 32	7 36	7 39
12 51	15	6 59	7 01	7 02	7 04	7 05	7 07	7 09	7 11	7 13	7 14	7 17	7 19	7 21	7 23	7 27	7 29
11 06	20	6 53	6 54	6 56	6 57	6 58	7 00	7 01	7 03	7 04	7 06	7 08	7 10	7 11	7 14	7 17	7 19
9 16 S	25	6 46	6 48	6 49	6 50	6 51	6 52	6 53	6 55	6 56	6 57	6 59	7 00	7 02	7 04	7 05	7 07
7 18 S	Mar. 2	6 40	6 41	6 41	6 42	6 43	6 44	6 45	6 46	6 47	6 48	6 49	6 51	6 52	6 53	6 54	6 56
5 23	7	6 33	6 33	6 33	6 34	6 35	6 36	6 37	6 37	6 38	6 39	6 40	6 41	6 42	6 42	6 43	6 44
3 25	12	6 25	6 26	6 26	6 26	6 27	6 27	6 28	6 28	6 29	6 29	6 30	6 30	6 31	6 32	6 32	6 33
1 27 S	17	6 18	6 18	6 18	6 18	6 19	6 19	6 19	6 19	6 20	6 20	6 20	6 20	6 21	6 21	6 21	6 21
0 32 N	22	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10	6 10
2 30 N	27	6 03	6 03	6 02	6 02	6 02	6 02	6 01	6 01	6 01	6 00	6 00	6 00	5 59	5 59	5 58	5 58
4 26 N	Apr. 1	5 56	5 55	5 55	5 54	5 54	5 53	5 52	5 52	5 51	5 51	5 50	5 50	5 49	5 48	5 48	5 48
6 21	6	5 48	5 48	5 47	5 46	5 46	5 45	5 44	5 43	5 42	5 41	5 40	5 40	5 39	5 38	5 38	5 37
8 13	11	5 41	5 40	5 39	5 38	5 38	5 36	5 36	5 34	5 33	5 32	5 31	5 29	5 28	5 27	5 27	5 25
10 01	16	5 34	5 33	5 32	5 31	5 30	5 28	5 27	5 26	5 24	5 23	5 22	5 20	5 19	5 17	5 16	5 14
11 46	21	5 28	5 26	5 25	5 24	5 22	5 21	5 19	5 18	5 16	5 14	5 13	5 11	5 09	5 07	5 06	5 04
13 25 N	26	5 22	5 20	5 19	5 17	5 15	5 14	5 12	5 10	5 08	5 06	5 04	5 02	5 00	4 58	4 56	4 54
14 59 N	May 1	5 15	5 13	5 11	5 10	5 08	5 06	5 04	5 02	5 00	4 58	4 55	4 53	4 51	4 48	4 45	4 42
16 27	6	5 10	5 07	5 05	5 04	5 03	5 00	4 57	4 55	4 53	4 51	4 48	4 45	4 43	4 39	4 36	4 34
17 48	11	5 06	5 03	5 01	4 59	4 56	4 54	4 52	4 49	4 47	4 44	4 41	4 38	4 35	4 32	4 28	4 26
19 02	16	4 51	4 59	4 57	4 54	4 52	4 49	4 47	4 44	4 41	4 38	4 35	4 32	4 29	4 25	4 21	4 19
20 04	21	4 57	4 55	4 53	4 50	4 48	4 45	4 42	4 39	4 36	4 33	4 30	4 26	4 24	4 19	4 15	4 12
21 05	26	4 55	4 52	4 49	4 47	4 44	4 41	4 39	4 35	4 32	4 29	4 25	4 22	4 18	4 14	4 10	4 07
21 53 N	31	4 52	4 49	4 46	4 44	4 41	4 38	4 34	4 31	4 28	4 25	4 21	4 17	4 13	4 09	4 04	4 01
22 31 N	June 5	4 50	4 47	4 45	4 42	4 39	4 36	4 33	4 29	4 26	4 22	4 18	4 14	4 10	4 06	4 02	3 58
23 00	10	4 49	4 47	4 44	4 41	4 38	4 35	4 32	4 28	4 24	4 21	4 17	4 13	4 09	4 04	3 59	3 55
23 18	15	4 49	4 47	4 44	4 41	4 38	4 34	4 31	4 28	4 24	4 20	4 16	4 12	4 08	4 03	3 58	3 54
23 26	20	4 50	4 47	4 44	4 42	4 38	4 35	4 32	4 28	4 25	4 21	4 17	4 13	4 09	4 04	3 59	3 54
23 24	25	4 52	4 49	4 46	4 43	4 40	4 36	4 33	4 30	4 26	4 22	4 18	4 14	4 10	4 05	4 00	3 56
23 12 N	30	4 54	4 51	4 48	4 45	4 42	4 39	4 36	4 32	4 28	4 25	4 21	4 17	4 13	4 08	4 03	3 58
22 50 N	July 5	4 55	4 52	4 49	4 47	4 43	4 40	4 37	4 34	4 30	4 27	4 24	4 20	4 16	4 11	4 07	4 02
22 17	10	4 58	4 55	4 52	4 50	4 47	4 44	4 41	4 37	4 34	4 31	4 27	4 23	4 19	4 15	4 10	4 06
21 35	15	5 02	4 59	4 57	4 54	4 51	4 48	4 46	4 42	4 39	4 36	4 32	4 29	4 25	4 21	4 17	4 12
20 44	20	5 06	5 03	5 01	4 58	4 56	4 53	4 50	4 47	4 44	4 41	4 37	4 34	4 31	4 27	4 23	4 18
19 44	25	5 09	5 07	5 05	5 02	5 00	4 57	4 55	4 52	4 49	4 46	4 43	4 40	4 37	4 33	4 29	4 25
18 36 N	30	5 12	5 10	5 08	5 06	5 03	5 01	4 59	4 56	4 53	4 51	4 48	4 45	4 42	4 39	4 35	4 32
17 20 N	Aug. 4	5 17	5 15	5 13	5 11	5 09	5 07	5 05	5 02	5 00	4 58	4 55	4 52	4 49	4 45	4 42	4 39
15 57	9	5 20	5 18	5 17	5 15	5 13	5 11	5 09	5 07	5 05	5 03	5 00	4 57	4 55	4 52	4 49	4 47
14 28	14	5 24	5 23	5 21	5 20	5 18	5 16	5 14	5 13	5 11	5 09	5 06	5 04	5 02	4 59	4 57	4 55
12 53	19	5 28	5 27	5 26	5 24	5 23	5 21	5 20	5 18	5 16	5 15	5 13	5 11	5 09	5 07	5 05	5 02
11 13	24	5 33	5 31	5 30	5 29	5 28	5 26	5 25	5 24	5 22	5 21	5 19	5 17	5 16	5 14	5 12	5 01
9 29 N	29	5 36	5 35	5 35	5 34	5 33	5 31	5 30	5 29	5 28	5 27	5 25	5 24	5 23	5 21	5 20	5 18
7 40 N	Sept. 3	5 41	5 40	5 39	5 38	5 37	5 37	5 36	5 35	5 34	5 33	5 32	5 31	5 30	5 29	5 28	5 27
5 49	18	5 45	5 44	5 43	5 43	5 42	5 42	5 41	5 41	5 40	5 39	5 38	5 38	5 37	5 36	5 35	5 35
3 55	13	5 49	5 48	5 48	5 48	5 47	5 47	5 47	5 46	5 46	5 45	5 45	5 44	5 44	5 43	5 43	5 43
2 00	18	5 53	5 53	5 53	5 52	5 52	5 52	5 52	5 52	5 52	5 52	5 51	5 51	5 51	5 51	5 51	5 51
0 03 N	23	5 57	5 57	5 57	5 57	5 57	5 57	5 57	5 58	5 57	5 58	5 58	5 58	5 58	5 59	5 59	5 59
1 54 S	28	6 01	6 01	6 02	6 02	6 02	6 03	6 03	6 03	6 04	6 04	6 05	6 05	6 06	6 06	6 07	6 07
3 51 S	Oct. 3	6 05	6 06	6 06	6 07	6 08	6 08	6 09	6 10	6 10	6 11	6 12	6 12	6 13	6 14	6 15	6 16
5 46	8	6 10	6 11	6 11	6 12	6 13	6 14	6 15	6 15	6 17	6 17	6 19	6 20	6 21	6 22	6 23	6 24
7 40	13	6 14	6 15	6 16	6 17	6 18	6 19	6 20	6 22	6 23	6 24	6 26	6 27	6 28	6 29	6 30	6 32
9 31	18	6 19	6 20	6 21	6 23	6 24	6 25	6 27	6 28	6 30	6 31	6 33	6 35	6 36	6 37	6 39	6 41
11 18	23	6 21	6 25	6 27	6 28	6 30	6 31	6 33	6 35	6 37	6 38	6 40	6 42	6 44	6 46	6 48	6 50
13 02 S	28	6 29	6 31	6 32	6 34	6 36	6 37	6 39	6 41	6 43	6 45	6 48	6 50	6 52	6 54	6 57	6 59
14 40 S	Nov. 2	6 34	6 36	6 38	6 40	6 42	6 44	6 46	6 48	6 51	6 53	6 55	6 58	7 01	7 03	7 06	7 09
16 12	7	6 40	6 42	6 44	6 46	6 48	6 50	6 53	6 55	6 58	7 00	7 03	7 06	7 09	7 11	7 15	7 18
17 38	12	6 45	6 47	6 49	6 51	6 54	6 57	6 59	7 02	7 05	7 08	7 11	7 14	7 17	7 20	7 23	7 27
18 56	17	6 50	6 53	6 55	6 57	7 00	7 03	7 06	7 09	7 12	7 15	7 18	7 22	7 25	7 28	7 32	7 36
20 05	22	6 55	6 58	7 01	7 03	7 06	7 09	7 12	7 15	7 19	7 22	7 25	7 29	7 33	7 36	7 40	7 45
21 05 S	27	7 01	7 03	7 06	7 09	7 12	7 15	7 18	7 21	7 25	7 28	7 32	7 36	7 40	7 44	7 48	7 53
21 55 S	Dec. 2	7 05	7 08	7 11	7 14	7 17	7 21	7 24	7 27	7 31	7 35	7 39	7 43	7 47	7 51	7 56	8 01
22 35	7	7 10	7 13	7 16	7 19	7 22	7 25	7 29	7 33	7 36	7 40	7 44	7 49	7 53	7 58	8 03	8 08
23 04	12	7 14	7 17	7 20	7 23	7 26	7 29	7 33	7 37	7 41	7 45	7 49	7 54	7 58	8 03	8 09	8 14
23 21	17	7 18	7 21	7 24	7 27	7 31	7 34	7 38	7 42	7 46	7 50	7 54	7 59	8 03	8 07	8 13	8 18
23 27	22	7 21	7 24	7 27	7 30	7 34	7 37	7 42	7 45	7 49	7 52	7 57	8 01	8 06	8 11	8 17	8 22
23 21 S	27	7 23	7 26	7 29	7 32	7 35	7 39	7 43	7 47	7 51	7 54	7 58	8 03	8 07	8 13	8 18	8 23
23 08 S	Jan. 1	7 24	7 27	7 30	7 33	7 36	7 40	7 43	7 47	7 51	7 55	7 59	8 03	8 08	8 13	8 18	8 23

Declination.	Approx. date.	South Latitude.															
		53°	54°	55°	56°	57°	58°	59°	60°	61°	62°	63°	64°	65°	66°	67°	68°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05 S	Jan. 1	3 37	3 31	3 25	3 17	3 10	3 01	2 52	2 41	2 30	2 15	2 01	1 37	1 15	.....	Sets	Sets
22 37	6	3 43	3 37	3 31	3 24	3 16	3 08	2 59	2 49	2 38	2 25	2 11	1 51	1 32	0 52	Jan. 10	Jan. 16.
21 58	11	3 50	3 44	3 38	3 32	3 25	3 17	3 09	2 59	2 50	2 37	2 25	2 07	1 50	1 26	0 44	.....
21 08	16	3 59	3 53	3 48	3 41	3 35	3 28	3 20	3 11	3 03	2 52	2 40	2 26	2 11	1 52	1 26	.....
20 07	21	4 08	4 03	3 57	3 51	3 45	3 38	3 31	3 23	3 15	3 05	2 55	2 42	2 29	2 13	1 54	1 28
18 58	26	4 16	4 12	4 07	4 02	3 56	3 50	3 44	3 36	3 29	3 21	3 11	3 00	2 50	2 35	2 20	2 01
17 39 S	31	4 26	4 22	4 18	4 13	4 07	4 01	3 56	3 50	3 44	3 36	3 28	3 19	3 09	2 57	2 45	2 30
16 13 S	Feb. 5	4 36	4 32	4 29	4 24	4 19	4 14	4 09	4 04	3 58	3 50	3 44	3 36	3 27	3 17	3 07	2 55
14 40	10	4 46	4 43	4 39	4 36	4 32	4 27	4 23	4 18	4 13	4 07	4 01	3 54	3 47	3 39	3 30	3 19
13 01	15	4 56	4 53	4 50	4 47	4 42	4 39	4 35	4 31	4 28	4 23	4 18	4 11	4 06	3 59	3 51	3 42
11 16	20	5 06	5 03	5 01	4 58	4 55	4 52	4 49	4 45	4 42	4 38	4 34	4 28	4 23	4 18	4 11	4 04
9 28 S	25	5 15	5 13	5 11	5 09	5 07	5 04	5 02	4 58	4 56	4 52	4 49	4 43	4 40	4 36	4 31	4 25
7 30 S	Mar. 2	5 25	5 23	5 22	5 20	5 18	5 16	5 14	5 12	5 09	5 07	5 04	5 00	4 57	4 54	4 49	4 45
5 34	7	5 34	5 33	5 32	5 31	5 29	5 28	5 26	5 25	5 23	5 21	5 19	5 16	5 14	5 11	5 07	5 05
3 37	12	5 44	5 43	5 42	5 41	5 41	5 39	5 38	5 37	5 36	5 35	5 34	5 31	5 30	5 28	5 25	5 23
1 39 S	17	5 53	5 52	5 52	5 52	5 51	5 51	5 50	5 50	5 49	5 48	5 48	5 46	5 45	5 44	5 43	5 42
0 20 N	22	6 02	6 02	6 02	6 02	6 02	6 02	6 02	6 02	6 02	6 02	6 02	6 01	6 01	6 01	6 00	6 00
2 18 N	27	6 11	6 11	6 12	6 12	6 12	6 13	6 13	6 14	6 15	6 15	6 16	6 15	6 16	6 17	6 17	6 18
4 15 N	Apr. 1	6 20	6 21	6 21	6 22	6 23	6 24	6 25	6 26	6 27	6 28	6 30	6 30	6 30	6 33	6 34	6 36
6 09	6	6 28	6 30	6 31	6 32	6 34	6 35	6 37	6 38	6 40	6 42	6 44	6 45	6 47	6 49	6 51	6 54
8 02	11	6 37	6 39	6 40	6 42	6 44	6 46	6 48	6 50	6 52	6 55	6 57	6 59	7 02	7 05	7 08	7 12
9 51	16	6 46	6 48	6 50	6 52	6 54	6 57	6 59	7 02	7 05	7 08	7 11	7 14	7 18	7 22	7 25	7 30
11 35	21	6 55	6 57	6 59	7 02	7 05	7 08	7 11	7 14	7 17	7 21	7 25	7 29	7 33	7 38	7 43	7 49
13 15 N	26	7 08	7 06	7 09	7 12	7 15	7 19	7 22	7 26	7 30	7 35	7 39	7 44	7 49	7 55	8 01	8 08
14 50 N	May 1	7 13	7 16	7 19	7 23	7 25	7 29	7 33	7 38	7 43	7 48	7 53	7 58	8 05	8 12	8 19	8 28
16 19	6	7 21	7 25	7 28	7 32	7 35	7 40	7 44	7 50	7 55	8 01	8 07	8 13	8 21	8 29	8 37	8 48
17 42	11	7 29	7 33	7 37	7 42	7 45	7 50	7 55	8 01	8 07	8 13	8 21	8 28	8 36	8 46	8 56	9 09
18 55	16	7 37	7 41	7 46	7 51	7 55	8 00	8 06	8 12	8 19	8 27	8 34	8 43	8 52	9 03	9 15	9 29
19 58	21	7 45	7 49	7 54	7 59	8 03	8 10	8 16	8 22	8 30	8 39	8 47	8 57	9 07	9 20	9 34	9 51
21 00	26	7 52	7 56	8 01	8 07	8 12	8 18	8 25	8 33	8 40	8 50	8 59	9 10	9 22	9 37	9 54	10 15
21 48 N	31	7 58	8 03	8 08	8 14	8 20	8 27	8 34	8 42	8 50	9 00	9 10	9 23	9 36	9 53	10 13	10 40
22 28 N	June 5	8 04	8 09	8 15	8 20	8 26	8 34	8 41	8 50	8 59	9 10	9 21	9 34	9 49	10 07	10 31	11 08
22 57	10	8 08	8 14	8 18	8 25	8 32	8 39	8 47	8 56	9 05	9 17	9 29	9 44	10 00	10 20	10 49	Does
23 17	15	8 11	8 17	8 23	8 29	8 36	8 44	8 52	9 01	9 11	9 23	9 35	9 51	10 08	10 31	11 05	not rise
23 26	20	8 14	8 20	8 26	8 32	8 39	8 47	8 55	9 04	9 14	9 26	9 38	9 54	10 11	10 35	11 12	June 10
23 25	25	8 15	8 21	8 26	8 33	8 40	8 48	8 56	9 05	9 15	9 27	9 39	9 55	10 12	10 35	11 10	to
23 14 N	30	8 14	8 20	8 25	8 32	8 39	8 47	8 54	9 04	9 13	9 25	9 37	9 53	10 08	10 30	11 02	July 3.
22 52 N	July 5	8 12	8 18	8 23	8 30	8 36	8 44	8 51	9 00	9 09	9 20	9 32	9 48	10 03	10 23	10 48	11 45
22 21	10	8 09	8 14	8 20	8 26	8 32	8 39	8 46	8 55	9 03	9 14	9 25	9 40	9 54	10 12	10 31	11 09
21 40	15	8 06	8 11	8 16	8 21	8 27	8 34	8 41	8 49	8 57	9 06	9 17	9 30	9 42	9 58	10 18	10 43
20 50	20	8 00	8 05	8 10	8 16	8 21	8 27	8 34	8 41	8 48	8 57	9 07	9 18	9 29	9 43	10 00	10 20
19 50	25	7 53	7 58	8 03	8 08	8 12	8 19	8 24	8 31	8 38	8 46	8 55	9 05	9 15	9 27	9 41	9 58
18 43 N	30	7 46	7 50	7 55	7 59	8 04	8 09	8 14	8 20	8 26	8 33	8 42	8 50	8 59	9 10	9 22	9 36
17 28 N	Aug. 4	7 38	7 42	7 45	7 50	7 55	7 59	8 04	8 09	8 15	8 21	8 29	8 36	8 44	8 53	9 03	9 15
16 06	9	7 28	7 32	7 35	7 39	7 43	7 47	7 51	7 56	8 02	8 08	8 14	8 21	8 27	8 35	8 43	8 54
14 37	14	7 18	7 22	7 25	7 28	7 31	7 35	7 39	7 43	7 48	7 54	7 59	8 05	8 10	8 17	8 24	8 33
13 03	19	7 09	7 11	7 14	7 17	7 20	7 23	7 27	7 30	7 34	7 39	7 43	7 48	7 53	7 58	8 04	8 12
11 28	24	6 58	7 00	7 02	7 05	7 08	7 10	7 13	7 16	7 19	7 24	7 27	7 31	7 35	7 40	7 45	7 51
9 39 N	29	6 47	6 48	6 50	6 53	6 55	6 57	6 59	7 02	7 04	7 08	7 11	7 14	7 17	7 21	7 25	7 30
7 51 N	Sept. 3	6 35	6 36	6 38	6 40	6 42	6 44	6 45	6 47	6 49	6 52	6 54	6 57	6 59	7 02	7 05	7 09
6 00	8	6 24	6 24	6 25	6 27	6 28	6 30	6 31	6 32	6 34	6 36	6 38	6 39	6 41	6 43	6 45	6 49
4 07	13	6 12	6 12	6 13	6 14	6 15	6 15	6 16	6 17	6 18	6 20	6 21	6 22	6 23	6 24	6 25	6 28
2 11	18	5 59	6 00	6 00	6 01	6 01	6 02	6 02	6 02	6 02	6 04	6 04	6 04	6 04	6 05	6 05	6 06
0 15 N	23	5 47	5 47	5 47	5 48	5 47	5 47	5 47	5 47	5 47	5 47	5 47	5 46	5 46	5 46	5 45	5 45
1 42 S	28	5 35	5 35	5 34	5 34	5 34	5 33	5 32	5 32	5 31	5 31	5 30	5 29	5 28	5 26	5 25	5 24
3 39 S	Oct. 3	5 23	5 22	5 21	5 21	5 20	5 19	5 18	5 16	5 15	5 14	5 13	5 11	5 09	5 07	5 05	5 04
5 35	8	5 11	5 10	5 08	5 08	5 07	5 05	5 03	5 01	4 59	4 58	4 56	4 54	4 52	4 48	4 45	4 41
7 28	13	5 00	4 58	4 56	4 55	4 53	4 51	4 49	4 46	4 44	4 42	4 39	4 36	4 32	4 26	4 24	4 20
9 20	18	4 48	4 46	4 44	4 42	4 40	4 37	4 35	4 31	4 28	4 26	4 22	4 18	4 14	4 09	4 04	3 58
11 08	23	4 37	4 34	4 32	4 30	4 27	4 24	4 21	4 17	4 13	4 10	4 05	4 01	3 55	3 49	3 43	3 36
12 51 S	28	4 26	4 24	4 21	4 17	4 14	4 10	4 06	4 02	3 58	3 54	3 49	3 43	3 37	3 30	3 22	3 13
14 30 S	Nov. 2	4 16	4 13	4 09	4 06	4 02	3 57	3 53	3 48	3 43	3 38	3 32	3 25	3 17	3 09	3 00	2 50
16 08	7	4 07	4 03	3 59	3 55	3 51	3 46	3 42	3 35	3 29	3 23	3 16	3 07	2 59	2 49	2 38	2 26
17 29	12	3 58	3 54	3 50	3 45	3 40	3 34	3 29	3 22	3 15	3 08	3 01	2 50	2 41	2 29	2 16	2 01
18 48	17	3 50	3 46	3 41	3 36	3 30	3 24	3 18	3 19	3 03	2 55	2 46	2 34	2 23	2 09	1 53	1 33
19 58	22	3 44	3 38	3 33	3 27	3 22	3 15	3 08	3 00	2 51	2 42	2 32	2 18	2 05	1 49	1 28	1 02
20 59 S	27	3 38	3 32	3 27	3 21	3 14	3 07	2 59	2 50	2 41	2 31	2 19	2 04	1 49	1 28	1 02	0 08
21 51 S	Dec. 2	3 33	3 27	3 22	3 15	3 08	3 00	2 52	2 42	2 32	2 21	2 08	1 50	1 33	1 06	0 22	.....
22 32	7	3 30	3 24	3 19	3 11	3 04	2 56	2 47	2 36	2 26	2 13	2 59	1 39	1 18	0 42	.....	.....
23 02	12	3 27	3 21	3 15	3 08	3 01	2 52	2 43	2 32	2 21	2 06	1 51	1 27	1 03	.....	.....	.....
23 20	17	3 28	3 21	3 15	3 07	3 00	2 50	2 41	2 30	2 18	2 02	1 47	1 21	0 55	Does not set between—		
23 27	22	3 30	3 23	3 17	3 09	3 01	2 52	2 43	2 31	2 19	2 03	1 48	1 21	0 54	Dec. 12	Dec. 3	Nov. 27
23 22 S	27	3 32	3 26	3 20	3 12	3 04	2 55	2 45	2 34	2 23	2 07	1 53	1 26	1 00	and	and	and
															Dec. 31;	Jan. 9;	Jan. 15;
23 05 S	Jan. 1	3 37	3 31	3 25	3 17	3 10	3 01	2 52	2 41	2 30	2 15	2 01	1 37	1 15	20 days	38 days	50 days.

Declination.	Approx. date.	South Latitude.															
		53°	54°	55°	56°	57°	58°	59°	60°	61°	62°	63°	64°	65°	66°	67°	68°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03 S	Jan. 1	8 29	8 36	8 43	8 50	8 57	9 06	9 15	9 26	9 37	9 52	10 06	10 28	10 51	11 55	Sets	Sets
22 34	6	8 28	8 34	8 40	8 47	8 54	9 03	9 11	9 22	9 32	9 45	9 59	10 18	10 37	11 16	Jan. 10	Jan. 16
21 53	11	8 25	8 31	8 37	8 43	8 50	8 59	9 07	9 16	9 26	9 39	9 51	10 08	10 26	10 51	11 30	.....
21 02	16	8 21	8 26	8 32	8 39	8 45	8 52	8 59	9 08	9 18	9 29	9 40	9 54	10 08	10 28	10 54	11 57
20 01	21	8 15	8 20	8 25	8 31	8 37	8 44	8 50	8 58	9 06	9 16	9 26	9 39	9 52	10 07	10 27	10 56
18 50	26	8 08	8 12	8 17	8 22	8 28	8 34	8 40	8 47	8 54	9 03	9 12	9 23	9 34	9 47	10 03	10 21
17 31 S	31	8 01	8 05	8 09	8 13	8 18	8 23	8 29	8 36	8 42	8 50	8 58	9 07	9 18	9 28	9 41	9 57
16 04 S	Feb. 5	7 52	7 55	7 59	8 03	8 07	8 12	8 18	8 23	8 29	8 35	8 43	8 50	8 59	9 08	9 21	9 32
14 30	10	7 42	7 45	7 49	7 52	7 56	8 00	8 05	8 10	8 15	8 21	8 27	8 34	8 41	8 49	8 58	9 08
12 51	15	7 32	7 35	7 37	7 40	7 43	7 47	7 52	7 56	8 00	8 05	8 10	8 16	8 21	8 29	8 36	8 44
11 06	20	7 21	7 23	7 26	7 28	7 31	7 34	7 38	7 42	7 46	7 50	7 54	7 58	8 04	8 09	8 15	8 22
9 16 S	25	7 09	7 12	7 13	7 16	7 18	7 20	7 23	7 27	7 30	7 33	7 37	7 41	7 46	7 50	7 54	8 00
7 18 S	Mar. 2	6 57	6 59	7 01	7 03	7 05	7 07	7 09	7 11	7 14	7 17	7 19	7 22	7 25	7 29	7 33	7 37
5 23	7	6 46	6 47	6 49	6 50	6 51	6 53	6 54	6 56	6 59	7 00	7 02	7 04	7 07	7 10	7 13	7 15
3 25	12	6 34	6 34	6 36	6 37	6 38	6 39	6 40	6 41	6 43	6 44	6 45	6 47	6 48	6 51	6 52	6 54
1 27 S	17	6 22	6 22	6 23	6 24	6 24	6 25	6 25	6 26	6 27	6 28	6 28	6 29	6 30	6 31	6 32	6 33
0 32 N	22	6 10	6 09	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11	6 11
2 30 N	27	5 58	5 57	5 58	5 57	5 57	5 56	5 56	5 56	5 56	5 55	5 54	5 54	5 53	5 52	5 51	5 50
4 26 N	Apr. 1	5 47	5 46	5 45	5 44	5 43	5 43	5 42	5 41	5 40	5 39	5 38	5 36	5 34	5 33	5 31	5 29
6 21	6	5 36	5 34	5 33	5 31	5 30	5 30	5 28	5 26	5 25	5 23	5 21	5 19	5 16	5 14	5 11	5 08
8 13	11	5 24	5 22	5 20	5 19	5 17	5 16	5 14	5 11	5 09	5 07	5 04	5 01	4 58	4 55	4 51	4 48
10 01	16	5 12	5 10	5 08	5 06	5 04	5 03	5 00	4 57	4 54	4 51	4 48	4 44	4 40	4 36	4 32	4 27
11 46	21	5 01	4 59	4 57	4 54	4 52	4 50	4 47	4 42	4 40	4 36	4 32	4 27	4 23	4 18	4 12	4 06
13 25 N	26	4 51	4 48	4 46	4 43	4 39	4 37	4 33	4 29	4 25	4 21	4 16	4 11	4 04	3 59	3 52	3 45
14 59 N	May 1	4 40	4 37	4 34	4 31	4 27	4 23	4 19	4 15	4 12	4 06	4 03	3 55	3 49	3 42	3 34	3 25
16 27	6	4 31	4 27	4 24	4 20	4 16	4 11	4 07	4 02	3 57	3 51	3 45	3 39	3 31	3 24	3 14	3 05
17 48	11	4 22	4 18	4 14	4 10	4 06	4 01	3 56	3 50	3 45	3 38	3 31	3 23	3 15	3 05	2 54	2 44
19 02	16	4 14	4 10	4 06	4 01	3 56	3 51	3 45	3 39	3 33	3 25	3 17	3 08	2 59	2 48	2 35	2 22
20 04	21	4 08	4 03	3 58	3 53	3 48	3 42	3 37	3 29	3 22	3 14	3 05	2 54	2 45	2 32	2 16	2 00
21 05	26	4 02	3 57	3 52	3 46	3 41	3 34	3 28	3 20	3 13	3 03	2 54	2 42	2 30	2 16	1 58	1 36
21 53 N	31	3 56	3 51	3 45	3 40	3 35	3 28	3 20	3 12	3 05	2 54	2 44	2 31	2 17	2 01	1 40	1 12
22 31 N	June 5	3 52	3 47	3 41	3 36	3 29	3 22	3 15	3 06	2 57	2 46	2 35	2 22	2 07	1 48	1 23	0 45
23 00	10	3 49	3 45	3 39	3 32	3 26	3 18	3 10	3 01	2 52	2 41	2 30	2 14	1 58	1 37	1 07	Does
23 18	15	3 48	3 43	3 38	3 31	3 24	3 16	3 08	2 59	2 49	2 37	2 23	2 09	1 52	1 29	0 55	not
23 26	20	3 48	3 43	3 37	3 31	3 24	3 15	3 07	2 58	2 48	2 36	2 24	2 07	1 51	1 27	0 50	rise
23 24	25	3 50	3 44	3 39	3 32	3 25	3 17	3 09	3 00	2 50	2 38	2 26	2 09	1 53	1 30	0 54	June 10
23 12 N	30	3 53	3 47	3 42	3 35	3 28	3 20	3 13	3 03	2 54	2 42	2 31	2 15	1 59	1 37	1 06	to July 3.
22 50 N	July 5	3 57	3 51	3 46	3 39	3 33	3 25	3 18	3 09	3 00	2 48	2 37	2 22	2 06	1 46	1 20	0 28
22 17	10	4 01	3 55	3 50	3 44	3 38	3 31	3 24	3 15	3 07	2 56	2 46	2 32	2 17	2 00	1 38	1 04
21 35	15	4 07	4 02	3 56	3 51	3 45	3 38	3 31	3 23	3 15	3 06	2 56	2 44	2 30	2 15	1 56	1 30
20 44	20	4 14	4 09	4 03	3 58	3 53	3 46	3 40	3 33	3 25	3 17	3 07	2 56	2 45	2 31	2 14	1 54
19 44	25	4 21	4 17	4 11	4 06	4 01	3 55	3 50	3 43	3 35	3 27	3 19	3 09	2 59	2 47	2 32	2 17
18 36 N	30	4 28	4 23	4 19	4 14	4 09	4 04	3 59	3 53	3 47	3 40	3 31	3 23	3 14	3 04	2 52	2 38
17 20 N	Aug. 4	4 35	4 32	4 27	4 23	4 19	4 14	4 09	4 04	3 58	3 52	3 45	3 37	3 30	3 21	3 11	3 00
15 57	9	4 43	4 40	4 37	4 33	4 29	4 25	4 21	4 16	4 10	4 05	3 58	3 52	3 45	3 38	3 29	3 20
14 28	14	4 52	4 48	4 45	4 42	4 38	4 34	4 31	4 27	4 23	4 18	4 12	4 06	4 01	3 54	3 47	3 39
12 53	19	5 00	4 56	4 54	4 51	4 48	4 45	4 42	4 38	4 35	4 21	4 26	4 21	4 16	4 11	4 05	3 58
11 13	24	5 08	5 05	5 03	5 01	4 58	4 56	4 53	4 50	4 47	4 44	4 39	4 35	4 31	4 27	4 22	4 17
9 29 N	29	5 17	5 14	5 12	5 10	5 08	5 06	5 04	5 02	4 59	4 56	4 53	4 49	4 47	4 43	4 39	4 35
7 40 N	Sept. 3	5 25	5 23	5 22	5 20	5 18	5 17	5 15	5 13	5 12	5 09	5 06	5 04	5 01	4 59	4 56	4 53
5 49	8	5 34	5 32	5 31	5 30	5 29	5 27	5 26	5 25	5 24	5 22	5 20	5 18	5 16	5 14	5 12	5 10
3 55	13	5 42	5 40	5 40	5 39	5 39	5 38	5 37	5 36	5 36	5 35	5 33	5 32	5 31	5 30	5 29	5 27
2 00	18	5 51	5 50	5 49	5 49	5 50	5 49	5 49	5 48	5 48	5 48	5 47	5 46	5 46	5 46	5 45	5 45
0 03 N	23	5 59	5 58	5 58	5 59	5 59	5 59	6 00	6 00	6 00	6 01	6 00	6 01	6 01	6 01	6 42	6 08
1 54 S	28	6 08	6 08	6 08	6 09	6 10	6 10	6 11	6 12	6 13	6 14	6 14	6 15	6 16	6 17	6 19	6 20
3 51 S	Oct. 3	6 17	6 17	6 18	6 19	6 20	6 21	6 23	6 24	6 26	6 27	6 28	6 30	6 32	6 34	6 36	6 39
5 46	8	6 26	6 26	6 27	6 29	6 31	6 33	6 34	6 36	6 38	6 41	6 42	6 45	6 47	6 50	6 53	6 57
7 40	13	6 34	6 36	6 37	6 40	6 41	6 43	6 45	6 48	6 50	6 52	6 55	6 59	7 02	7 06	7 10	7 15
9 31	18	6 43	6 45	6 48	6 50	6 52	6 55	6 57	7 01	7 03	7 07	7 10	7 15	7 19	7 24	7.29	7 35
11 18	23	6 53	6 55	6 58	7 01	7 03	7 06	7 10	7 14	7 16	7 21	7 24	7 30	7 35	7 40	7 46	7 54
13 02 S	28	7 02	7 05	7 08	7 12	7 15	7 18	7 22	7 27	7 30	7 36	7 41	7 47	7 51	7 59	8 07	8 16
14 40 S	Nov. 2	7 12	7 16	7 19	7 23	7 26	7 31	7 35	7 40	7 45	7 51	7 57	8 04	8 11	8 19	8 29	8 39
16 12	7	7 22	7 26	7 30	7 34	7 38	7 43	7 48	7 54	7 59	8 06	8 12	8 21	8 29	8 38	8 50	9 04
17 38	12	7 31	7 36	7 40	7 45	7 49	7 55	8 01	8 07	8 13	8 21	8 29	8 39	8 49	8 58	9 12	9 29
18 55	17	7 41	7 46	7 50	7 56	8 01	8 07	8 13	8 21	8 29	8 37	8 46	8 58	9 08	9 21	9 37	9 58
20 05	22	7 50	7 55	8 00	8 06	8 12	8 19	8 26	8 34	8 43	8 53	9 02	9 16	9 28	9 46	10 05	10 34
21 05 S	27	7 58	8 04	8 10	8 16	8 22	8 30	8 37	8 46	8 56	9 07	9 18	9 34	9 48	10 09	10 37	.....
21 55 S	Dec. 2	8 06	8 12	8 18	8 25	8 31	8 39	8 48	9 58	9 07	9 20	9 33	9 51	10 08	10 34	11 22	.....
22 35	7	8 13	8 19	8 26	8 33	8 40	8 49	8 58	9 08	9 18	9 32	9 46	10 07	10 28	11 03	.....	.....
23 04	12	8 19	8 25	8 32	8 39	8 47	8 56	9 05	9 16	9 28	9 43	9 58	10 22	10 46	Does not set between—		
23 21	17	8 24	8 31	8 36	8 44	8 52	9 01	9 10	9 22	9 34	9 49	10 05	10 31	10 58	Dec. 12 and Dec. 31.	Dec. 3 and Jan. 9; 38 days.	Nov. 27 and Jan. 15; 50 days.
23 27	22	8 28	8 34	8 40	8 48	8 56	9 05	9 14	9 26	9 38	9 54	10 09	10 36	11 03			
23 21 S	27	8 30	8 36	8 42	8 50	8 58	9 07	9 16	9 27	9 39	9 55	10 10	10 35	11 00			
23 08 S	Jan. 1	8 29	8 36	8 43	8 50	8 57	9 06	9 15	9 26	9 37	9 52	10 06	10 28	10 51	11 55		

Declination.	Approx. date.	South Latitude. 69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	80°	82°	84°	86°	88°	90°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 05S	Jan. 1	Sun does not set between—				Sun does not set between—				Sun does not set between—				Sun does not set between—			
22 37	6	Nov.22	Nov.18	Nov.14	Nov.10	Nov. 7	Nov. 4	Oct. 31	Oct. 28	Oct. 25	Oct. 23	Oct. 17	Oct. 12	Oct. 6	Oct. 1	Sept.26	Sept.21
21 58	11	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
21 08	16	Jan.20.	Jan.24.	Jan.28;	Feb. 1;	Feb. 4;	Feb. 7;	Feb.11;	Feb.14;	Feb.17;	Feb.19;	Feb.25;	Mar. 2;	Mar. 7;	Mar.12;	Mar.17;	Mar.23;
20 07	21	0 41	.....	76	84	90	96	104	110	116	120	132	142	153	163	173	184
18 58	26	1 36	0 36	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
17 39S	31	2 11	1 43	1 03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 13S	Feb. 5	2 41	2 22	2 00	1 27	0 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 40	10	3 09	3 54	2 38	2 27	1 55	1 07	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13 01	15	3 33	3 22	3 11	2 55	2 38	2 14	1 40	0 34	.....	.....	.....	.....	.....	.....	.....	.....
11 16	20	3 56	3 48	3 39	3 28	3 15	3 01	2 41	2 18	1 42	1 40	.....	.....	.....	.....	.....	.....
9 28S	25	4 18	4 12	4 05	3 57	3 46	3 36	3 22	3 07	2 46	2 30	.....	.....	.....	.....	.....	.....
7 30S	Mar. 2	4 41	4 36	4 30	4 24	4 15	4 08	3 58	3 47	3 34	3 20	2 23	.....	.....	.....	.....	.....
5 34	7	5 02	5 58	4 53	4 49	4 43	4 07	4 30	4 33	4 13	4 01	3 30	2 34	.....	.....	.....	.....
3 37	12	5 21	5 19	5 16	5 13	5 09	5 05	5 00	4 55	4 49	4 42	4 22	3 52	2 53	.....	.....	.....
1 39S	17	5 42	5 40	5 38	5 37	5 34	5 32	5 29	5 27	5 23	5 19	5 09	4 54	4 27	3 28	4 57	Sets
0 20N	22	6 00	6 00	5 59	5 59	5 58	5 58	5 57	5 58	5 56	5 51	5 53	5 50	5 44	5 32	8 58	Mar.23
2 18N	27	6 19	6 20	6 21	6 22	6 23	6 24	6 25	6 27	6 29	6 30	6 36	6 44	6 58	7 25	.....	.....
4 15N	Apr. 1	6 38	6 40	6 42	6 45	6 47	6 50	6 53	6 58	7 02	7 06	7 20	7 41	8 18	9 48	.....	.....
6 09	6	6 58	7 00	7 04	7 08	7 12	7 17	7 22	7 24	7 36	7 44	8 07	8 44	10 04	.....	.....	.....
8 02	11	7 16	7 21	7 26	7 32	7 37	7 45	7 52	8 00	8 13	8 23	9 01	10 10	.....	.....	.....	.....
9 51	16	7 36	7 42	7 48	7 56	8 04	8 13	8 24	8 35	8 51	9 10	10 11	.....	.....	.....	.....	.....
11 35	21	7 56	8 03	8 12	8 21	8 32	8 44	8 59	9 11	9 31	10 07	.....	.....	.....	.....	.....	.....
13 15N	26	8 15	8 25	8 35	8 47	9 01	9 15	9 37	10 02	.....	.....	.....	.....	.....	.....	.....	.....
14 50N	May 1	8 37	8 48	9 01	9 15	9 34	9 55	10 30	11 29	.....	.....	.....	.....	.....	.....	.....	.....
16 19	6	8 58	9 12	9 29	9 48	10 16	10 51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 42	11	9 21	9 39	10 00	10 28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 55	16	9 46	10 08	10 38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 58	21	10 11	10 42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 00	26	10 42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 48N	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 28N	June 5	Sun does not rise between—				Sun does not rise between—				Sun does not rise between—				Sun does not rise between—			
22 57	10	June 1	May 26	May 21	May 16	May 12	May 9	May 5	May 2	Apr. 28	Apr. 25	Apr. 19	Apr. 14	Apr. 8	Apr 3	Mar. 29	Mar. 24
23 17	15	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 26	20	July12;	July20;	July24;	July28;	Aug. 1;	Aug. 5;	Aug. 9;	Aug.12;	Aug.15;	Aug.19;	Aug.25;	Aug.30	Sept. 5;	Sept.10;	Sept.15;	Sept.20;
23 25	25	42	56	65	74	82	89	97	103	110	117	129	139	151	161	171	181
23 14N	30	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
22 52N	July 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 21	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 40	15	11 28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 50	20	10 47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 50	25	10 19	10 47	11 42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 43N	30	9 53	10 13	10 41	11 29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 28N	Aug. 4	9 27	9 44	10 03	10 30	11 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 06	9	9 05	9 18	9 32	9 51	10 14	10 49	11 49	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 37	14	8 42	8 52	9 03	9 18	9 36	9 57	10 23	11 14	.....	.....	.....	.....	.....	.....	.....	.....
13 03	19	8 19	8 28	8 37	8 48	9 02	9 17	9 35	10 01	10 35	.....	.....	.....	.....	.....	.....	.....
11 23	24	7 57	8 04	8 11	8 19	8 30	8 42	8 55	9 13	9 34	10 03	.....	.....	.....	.....	.....	.....
9 39N	29	7 35	7 40	7 46	8 53	7 01	8 08	8 20	8 32	8 47	9 05	10 02	.....	.....	.....	.....	.....
7 51N	Sept. 3	7 13	7 17	7 21	7 26	7 33	7 39	7 47	7 55	8 06	8 17	8 53	9 58	.....	.....	.....	.....
6 00	8	6 51	6 54	6 57	7 00	7 05	7 09	7 15	7 21	7 28	7 36	7 58	8 34	9 48	.....	.....	.....
4 07	13	6 29	6 31	6 33	6 35	6 38	6 40	6 44	6 47	6 52	6 46	7 09	7 29	8 03	9 26	.....	.....
2 11	18	6 06	6 07	6 08	6 09	6 11	6 11	6 13	6 14	6 16	6 09	6 22	6 30	6 42	7 07	8 28	Rises
0 15N	23	5 44	5 44	5 44	5 43	5 44	5 43	5 43	5 41	5 41	5 30	5 37	5 33	5 26	5 13	4 32	Sept.21
1 42S	28	5 22	5 21	5 20	5 17	5 16	5 14	5 14	5 08	5 05	4 54	4 50	4 34	4 07	3 06	.....	.....
3 39S	Oct. 3	5 00	4 58	4 56	4 52	4 49	4 45	4 41	4 35	4 29	4 21	4 01	3 30	2 30	.....	.....	.....
5 35	8	4 28	4 34	4 31	4 26	4 21	4 15	4 08	3 59	3 50	3 39	3 06	2 10	.....	.....	.....	.....
7 28	13	4 15	4 10	4 05	3 58	3 52	3 43	3 34	3 22	3 08	2 52	1 59	.....	.....	.....	.....	.....
9 20	18	3 52	3 45	3 39	3 20	3 21	3 10	2 57	2 40	2 19	1 51	.....	.....	.....	.....	.....	.....
11 08	23	3 28	3 20	3 11	3 00	2 47	2 32	2 14	1 48	1 09	.....	.....	.....	.....	.....	.....	.....
12 51S	28	3 04	2 54	2 41	2 27	2 12	1 51	1 20	0 25	.....	.....	.....	.....	.....	.....	.....	.....
14 30S	Nov. 2	2 38	2 26	2 10	1 52	1 30	0 46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 03	7	2 10	1 55	1 33	1 03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 29	12	1 42	1 19	0 43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 48	17	1 12	0 24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 58	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 59S	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 51S	Dec. 2	Sun does not set between—				Sun does not set between—				Sun does not set between—				Sun does not set between—			
22 32	7	Nov.22	Nov.18	Nov.14	Nov.16	Nov. 7	Nov. 4	Oct. 31	Oct. 28	Oct. 25	Oct. 23	Oct. 17	Oct. 12	Oct. 6	Oct. 1	Sept.26	Sept.21
23 02	12	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 20	17	Jan.20;	Jan.24;	Jan.28;	Feb. 1;	Feb. 4;	Feb. 7;	Feb.11;	Feb.14;	Feb.17;	Feb.19;	Feb.25;	Mar. 2;	Mar. 7;	Mar.12;	Mar.17;	Mar.23;
23 27	22	60	68	76	84	90	96	104	110	116	120	132	142	153	163	173	184
23 22S	27	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
23 05S	Jan. 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Declination.	Approx. date.	South Latitude.															
		69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	80°	82°	84°	86°	88°	90°
° ′		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
23 03S	Jan. 1	Sun does not set between—				Sun does not set between—				Sun does not set between—				Sun does not set between—			
22 34	6	Nov.22	Nov.18	Nov.14	Nov.10	Nov. 7	Nov. 4	Oct. 31	Oct. 28	Oct. 25	Oct. 23	Oct. 17	Oct. 12	Oct. 6	Oct. 1	Sept.26	Sept.21
21 53	11	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
21 02	16	Jan. 20	Jan. 24	Jan.28	Feb. 1	Feb. 4	Feb. 7	Feb.11	Feb.14	Feb.17	Feb.19	Feb.25	Mar. 2	Mar. 7	Mar 12	Mar.17	May 23
20 01	21	11 37	.....	76	84	90	96	104	110	116	120	132	142	153	163	173	184
18 50	26	10 50	11 36	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
17 31S	31	10 16	10 40	11 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 04S	Feb. 5	9 47	10 03	10 25	10 55	11 39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 30	10	9 19	9 32	9 46	10 06	10 28	11 12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 51	15	8 53	9 04	9 15	9 30	9 45	10 06	10 49	11 34	.....	.....	.....	.....	.....	.....	.....	.....
11 06	20	8 29	8 38	8 47	8 58	9 10	9 24	9 44	10 05	10 41	.....	.....	.....	.....	.....	.....	.....
9 16S	25	8 06	8 12	8 20	8 28	8 37	8 47	8 58	9 14	9 33	9 58	.....	.....	.....	.....	.....	.....
7 18S	Mar. 2	7 42	7 47	7 53	7 59	8 06	8 15	8 23	8 33	8 46	9 00	9 53	.....	.....	.....	.....	.....
5 23	7	7 20	7 23	7 28	7 32	7 38	7 43	7 50	7 57	8 07	8 17	8 47	9 39	.....	.....	.....	.....
3 25	12	6 57	6 59	7 03	7 06	7 10	7 13	7 18	7 23	7 29	7 35	7 53	8 22	9 16	.....	.....	.....
1 27S	17	6 35	6 36	6 38	6 40	6 42	6 44	6 47	6 49	6 52	6 55	7 04	7 18	7 42	8 35	.....	.....
0 32N	22	6 12	6 12	6 14	6 14	6 15	6 15	6 16	6 16	6 16	6 17	6 17	6 19	6 23	6 30	6 54	Sets
2 30N	27	5 50	5 49	5 49	5 47	5 46	5 45	5 44	5 42	5 40	5 37	5 30	5 21	5 06	4 34	2 40	Mar.23
4 26N	Apr. 1	5 28	5 26	5 24	5 21	5 19	5 16	5 13	5 08	5 04	4 58	4 43	4 21	3 42	2 00	.....	.....
6 21	6	5 06	5 03	5 00	4 56	4 52	4 46	4 41	4 34	4 27	4 18	3 53	3 13	1 45	.....	.....	.....
8 13	11	4 44	4 40	4 35	4 29	4 24	4 16	4 08	3 58	3 47	3 35	2 56	1 40	.....	.....	.....	.....
10 01	16	4 22	4 16	4 10	4 02	3 55	3 45	3 34	3 21	3 07	2 45	1 40	.....	.....	.....	.....	.....
11 46	21	4 00	3 52	3 45	3 35	3 25	3 11	2 55	2 39	2 19	1 42	.....	.....	.....	.....	.....	.....
13 25N	26	3 37	3 28	3 19	3 06	2 52	2 35	2 15	1 48	.....	.....	.....	.....	.....	.....	.....	.....
14 59N	May 1	3 16	3 04	2 52	2 36	2 20	1 54	1 19	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 27	6	2 52	2 38	2 23	2 02	1 37	0 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 48	11	2 29	2 11	1 50	1 21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 02	16	2 05	1 41	1 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 04	21	1 40	1 07	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 05	26	1 01	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 53N	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 31N	June 5	Sun does not rise between—				Sun does not rise between—				Sun does not rise between—				Sun does not rise between—			
23 00	10	June 1	May 26	May 21	May 16	May 12	May 9	May 5	May 2	Apr. 28	Apr. 25	Apr. 19	Apr. 14	Apr. 8	Apr. 3	Mar.29	Mar.24
23 18	15	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 26	20	July 12	July 20	July 24	July 28	Aug. 1	Aug. 5	Aug. 9	Aug.12	Aug.15	Aug.19	Aug.25	Aug.30	Sept. 5	Sept.10	Sept.15	Sept.20
23 24	25	42	56	65	74	82	89	97	103	110	117	129	139	151	161	171	181
23 12N	30	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
22 50N	July 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22 17	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 35	15	0 44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 44	20	1 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 44	25	1 56	1 30	0 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 36N	30	2 22	2 02	1 36	0 52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 20N	Aug. 4	2 46	2 31	2 11	1 47	1 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15 57	9	3 08	2 56	2 41	2 23	2 01	1 28	0 30	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 28	14	3 30	3 20	3 07	2 45	2 37	2 17	1 51	1 05	.....	.....	.....	.....	.....	.....	.....	.....
12 53	19	3 50	3 42	3 31	3 21	3 08	2 54	2 35	2 12	1 30	0 25	.....	.....	.....	.....	.....	.....
11 13	24	4 10	4 03	3 55	3 47	3 36	3 25	3 11	2 55	2 36	2 08	.....	.....	.....	.....	.....	.....
9 29N	29	4 29	4 24	4 17	4 11	4 02	3 54	3 44	3 32	3 18	3 01	2 07	.....	.....	.....	.....	.....
7 40N	Sept. 3	4 48	4 44	4 39	4 34	4 28	4 22	4 14	4 06	3 56	3 44	3 12	2 11	.....	.....	.....	.....
5 49	8	5 07	5 04	5 00	4 57	4 52	4 48	4 42	4 37	4 30	4 23	4 02	3 28	2 21	.....	.....	.....
3 55	13	5 25	5 24	5 21	5 19	5 16	5 14	5 10	5 07	5 02	4 58	4 48	4 29	3 58	2 44	.....	.....
2 00	18	5 44	5 43	5 42	5 41	5 40	5 39	5 37	5 37	5 35	5 34	5 30	5 24	5 14	4 53	3 46	Rises
0 03N	23	6 02	6 03	6 03	6 04	6 04	6 05	6 05	6 06	6 07	6 09	6 13	6 18	6 27	6 44	7 38	Sept.21
1 54S	28	6 21	6 23	6 24	6 26	6 28	6 30	6 33	6 36	6 40	6 45	6 56	7 14	7 43	8 51	.....	.....
3 51S	Oct. 3	6 40	6 43	6 46	6 49	6 53	6 57	7 02	7 08	7 14	7 23	7 43	8 16	9 20	.....	.....	.....
5 46	8	7 00	7 04	7 08	7 13	7 18	7 25	7 32	7 41	7 51	8 03	8 35	9 35	.....	.....	.....	.....
7 40	13	7 19	7 25	7 30	7 38	7 45	7 54	8 04	8 16	8 31	8 49	9 43	.....	.....	.....	.....	.....
9 31	18	7 41	7 48	7 55	8 04	8 14	8 26	8 43	8 57	9 20	9 46	.....	.....	.....	.....	.....	.....
11 18	23	8 02	8 11	8 20	8 33	8 45	9 02	9 20	9 46	10 34	.....	.....	.....	.....	.....	.....	.....
13 02S	28	8 25	8 37	8 49	9 05	9 23	9 46	10 15	11 28	.....	.....	.....	.....	.....	.....	.....	.....
14 40S	Nov. 2	8 51	9 05	9 22	9 41	10 00	10 51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 12	7	9 32	9 36	9 58	10 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 38	12	10 17	10 14	10 54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18 55	17	10 54	11 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 05	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 05S	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 55S	Dec. 2	Sun does not set between—				Sun does not set between—				Sun does not set between—				Sun does not set between—			
22 35	7	Nov.22	Nov.18	Nov.14	Nov.16	Nov. 7	Nov. 4	Oct. 31	Oct. 28	Oct. 25	Oct. 23	Oct. 17	Oct. 12	Oct. 6	Oct. 1	Sept.26	Sept.21
23 04	12	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and	and
23 21	17	Jan.20	Jan.24	Jan.28	Feb. 1	Feb. 4	Feb. 7	Feb.11	Feb.14	Feb.17	Feb.19	Feb.25	Mar. 2	Mar. 7	Mar.12	Mar.17	Mar. 23
23 27	22	60	68	76	84	90	96	104	110	116	120	132	142	153	163	173	184
23 21S	27	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.	days.
23 03S	Jan. 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 11.—REDUCTION OF LOCAL MEAN TIME OF SUNRISE AND SUNSET TO STANDARD MERIDIAN TIME.

Difference of longitude between local and standard meridian.	Reduction to be applied to local mean time.	Difference of longitude between local and standard meridian.	Reduction to be applied to mean local time.	Difference of longitude between local and standard meridian.	Reduction to be applied to mean local time.
° ′ ° ′	*Minutes.*	° ′ ° ′	*Minutes.*	°	*Hours.*
0 00 to 0 07	0	7 23 to 7 37	30	15	1
0 08 to 0 22	1	7 38 to 7 52	31	30	2
0 23 to 0 37	2	7 53 to 8 07	32	45	3
0 38 to 0 52	3	8 08 to 8 22	33	60	4
0 53 to 1 07	4	8 23 to 8 37	34	75	5
1 08 to 1 22	5	8 38 to 8 52	35	90	6
1 23 to 1 37	6	8 53 to 9 07	36	105	7
1 38 to 1 52	7	9 08 to 9 22	37	120	8
1 53 to 2 07	8	9 23 to 9 37	38	135	9
2 08 to 2 22	9	9 38 to 9 52	39	150	10
2 23 to 2 37	10	9 53 to 10 07	40	165	11
2 38 to 2 52	11	10 08 to 10 22	41	180	12
2 53 to 3 07	12	10 23 to 10 37	42		
3 08 to 3 22	13	10 38 to 10 52	43		
3 23 to 3 37	14	10 53 to 11 07	44		
3 38 to 3 52	15	11 08 to 11 22	45		
3 53 to 4 07	16	11 23 to 11 37	46		
4 08 to 4 22	17	11 38 to 11 52	47		
4 23 to 4 37	18	11 53 to 12 07	48		
4 38 to 4 52	19	12 08 to 12 22	49		
4 53 to 5 07	20	12 23 to 12 37	50		
5 08 to 5 22	21	12 38 to 12 52	51		
5 23 to 5 37	22	12 53 to 13 07	52		
5 38 to 5 52	23	13 08 to 13 22	53		
5 53 to 6 07	24	13 23 to 13 37	54		
6 08 to 6 22	25	13 38 to 13 52	55		
6 23 to 6 37	26	13 53 to 14 07	56		
6 38 to 6 52	27	14 08 to 14 22	57		
6 53 to 7 07	28	14 23 to 14 37	58		
7 08 to 7 22	29	14 38 to 14 52	59		

If local meridian is east of standard meridian, subtract from local mean time.

If local meridian is west of standard meridian, add to local mean time.

For differences of longitude less than 15°, use the first part of the table. For greater differences take from the last part of the table the hour corresponding to the nearest tabulated value less than the given difference, and from the first part of the table the minutes corresponding to the remainder obtained by subtracting this tabulated value from the given difference.

INDEX.

This Index gives the maritime States of the United States and Canada; the principal countries of the world; important islands and bodies of water, and the 70 ports for which full predictions are given, these ports being printed in small capitals here and also in Table 3.

In order to find any station given in Table 3, find in this Index the name of the country, State, or body of water in or upon which the station is located; the reference will be to the beginning of the list of stations given under that heading, the particular port required appearing in its geographic sequence.

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a,

NOTE.

In the preparation of these Tide Tables the best available material has been used; but the predictions and tidal constants are necessarily of unequal merit for different parts of the globe, owing to a lack of properly distributed observations upon which to base conclusions.

It is our purpose to substitute better values, as soon as obtained, wherever those given may prove unsatisfactory, and therefore any tidal observations, even if consisting of only a few tides, will be very acceptable.

To persons willing to aid in the collecting of tidal data, we would suggest to observe the height of the sea at regular intervals of one hour, day and night, whenever practicable, rather than the high and low waters only for the same period. Observations taken even at longer intervals of time, such as every two or three hours, will be useful.

It must be borne in mind that these tables aim to give the times and heights of high and low waters, and *not* the times of turning of the current or of slack water. For ocean stations there is usually but little difference between the time of high or low water and the beginning of ebb or flood current; but for places in narrow channels, land-locked harbors, or on tidal rivers the time of slack current may differ by two or three hours from the time of high or low water stand, and local knowledge is required to enable one to make the proper allowance for this delay in the condition of tidal currents.

It is desired to collect information relating to tidal currents with the view of including it in subsequent issues of this publication.

All persons are invited to send information or suggestions for increasing the usefulness of these Tide Tables to the

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WASHINGTON, D. C., U. S. A.

3 2044 103 127 981